# Lectures
ON THE
# SURGICAL TREATMENT OF EMPYEMA.

*Delivered at the Hospital for Consumption and Diseases of the Chest, Brompton.*

By RICKMAN J. GODLEE, M.S., F.R.C.S.,
SURGEON TO THE HOSPITAL, AND SURGEON TO UNIVERSITY COLLEGE HOSPITAL.

## LECTURE II.

(*Concluded from page 145.*)

If the operation be decided upon, the surgeon must, after ascertaining the size of the cavity, make up his mind as to the method of exposing the ribs to be removed. One way of doing this is by means of incisions parallel to the ribs. Through one such incision, carried through all the soft parts down upon one rib, portions of one or two others may be removed. I have not employed this method myself, but feel sure that, if it be decided upon, it is wise first to expose one of the ribs bounding the sinus and take a portion of it away, as it is clear that no exploration with any form of probe can give anything like such an accurate idea of the cavity to be dealt with as can be obtained by the introduction of the finger. After this has been done, the method of several incisions may, if desired, be employed. I have generally employed one of the flap operations indicated by the accompanying diagram (Fig. 3)—i.e., either turning one flap upwards or

FIG. 3.

The above illustrates different methods of performing Estlander's operation. E, Three ribs exposed by a flap turned forwards. F, Three ribs exposed by a flap turned upwards. G H I J, Other incisions which may be conveniently employed. The figure to the right was taken from C. W. (Case 5, *vide infra*). K, Flap turned backwards. L, The ends of the five ribs divided. M. Edge of thickened pleura which has been cut away. N, Cavity laid open. O, Parts of fifth, sixth, seventh, eighth, and ninth ribs removed, showing how the ends became rounded off and sometimes joined together after a previous removal of portions in front of those excised at this operation.

inwards, or making two flaps by means of a T-shaped or zig-zag cut. In doing this the muscles may be left adherent to the bones, or turned up with the flap, according to the position operated upon. For instance, it is more convenient to turn up the pectoralis major with the flap, than to make several cuts across its fibres; but, on the other hand, if one or two ribs only are to be removed in the axilla, and the surgeon does not intend to remove the periosteum and pleura, the serratus may conveniently be left behind, a skin flap only being turned aside. The parts over the ribs are often very vascular, and it is not uncommon to meet with hæmorrhage, which in a child is rather alarming, especially in the weak anæmic condition it will probably exhibit. The hæmorrhage takes place from a large number of small arteries along the intercostal spaces. It is not worth while to spend much time in attempting to secure these vessels. It is very difficult to do so, and after the rib has been removed they cause no further trouble. After the periosteum has been removed from the outer surface of the whole length of the rib to be excised with a square periosteum elevator, a blunt and slightly curved one with a rounded end is slipped beneath the rib, and it is found in these old cases that the dense pleura and periosteum are separated much more readily than the thinner corresponding structures in a recent case. Generally, when the instrument has been introduced at one point, it can with a firm pressure upwards and downwards at once clear the whole of the required length of rib. This may then be divided, either in the middle of the exposed portion, or, as I am in the habit of doing, at one end of it. By grasping the detached end the other is then divided without difficulty. It is very seldom that a rib even of a strong man cannot be divided with cutting pliers—either an ordinary pair, bent on the flat at the joint, or else such a pair as I showed you at the last lecture. But in case of difficulty the surgeon may be provided with a small saw, made on a convenient pattern. It is long, however, since I have used any instrument except cutting pliers for this purpose. Having, then, removed a sufficient length—three four, five, or more inches—of the rib from what is considered a sufficient area of the chest wall, the object being to render as far as may be possible the whole of the part that has to fall in pliable, or, in other words, to make the ends of the excised portion of rib correspond as nearly as possible with the anterior and posterior limits of the cavity it is intended to close, the question next arises as to what is to be done with the periosteum and pleura. The great rapidity with which a rib is reproduced if the periosteum be left soon puts a stop to the process of contraction; and, indeed, it appears that in some cases a large mass of callus is developed, forming a complete bony wall, which is, if possible, more incapable of yielding than the closely imbricated ribs which it has replaced. It is wise, therefore, to remove as much as possible of this thickened periosteum and pleura, so as to leave, in fact, a great gaping hole instead of a cavity with a small outlet. This may be thought to be a serious undertaking, and I used to be in the habit of applying several ligatures to the proximal portion of the mass before removing it. Subsequent experience, however, shows that this precaution is not necessary; for though the superficial vessels bleed freely, little or no trouble is given by the trunks of the intercostal arteries themselves. I have often removed some square inches of this dense material without having to ligature a single vessel; and if it be removed by snipping gradually away with curved scissors, the vessels, if any are met with, are easily secured directly they are divided, and no hæmorrhage of consequence occurs. The further back the vessels are divided, of course, the larger they are. The surgeon now has the opportunity of making a thorough investigation of the cavity. It is not likely that the interior will bleed much, and he may, if he thinks fit, adopt means for stimulating, and what is more important, purifying the interior. For this purpose many scrape the interior with a Volkmann's sharp spoon, and consider it a very valuable proceeding. I have done it several times, but it is very difficult to distinguish any good that arises from this procedure from that which arises from the operation itself. Its chief use, probably, is in removing the septic surface of the pleura, and preparing it for the application of the antiseptic materials to be next applied. I cannot help feeling that it is rather a rough proceeding, and when we reflect that the spoon may be scraping over the surface of the pericardium, and may be passing very close to important branches of the vagus and sympathetic, and also that the amount of good to be obtained is, to say the least, problematical, I think we may safely urge caution in its exercise.

While speaking on this subject I must make a divergence to say a few words concerning the occurrence of sudden death during the injection of the pleural cavity. Injection of the pleura was, I believe, much more freely practised at one time than it is at present. It may be used for two purposes, one to diminish the fetor of the discharge, the other to stimulate the granulations to a more healthy action. The latter object I conceive to be altogether futile and imaginary, and indeed I believe that as regards the development of granulations it is positively mischievous, tending to break down and destroy those that already exist. As regards the purification of the surfaces, injection is no doubt sometimes very useful, and indeed sometimes essential to the comparative comfort of the patient—that is, in those cases where it is hopeless to attempt a closure of the cavity and the system is being

poisoned by the putridity of the discharge. We sometimes practise it here, and are in the habit of employing a method which is perhaps the safest that can be devised:—A glass vessel with a perforation near the bottom, from which passes a caoutchouc tube, is filled with a solution of iodine of a pale sherry colour. To the caoutchouc tube is fitted a piece of gum-elastic catheter small enough not to fit tightly in the sinus. The caoutchouc tube is compressed by a pair of bull-dog forceps while the catheter is being introduced into the chest. When this is done the pressure is relaxed, and the bottle is raised very slightly above the level of the patient's body. In this way it is impossible to exert too great pressure inside the cavity, for the pressure itself is slight to begin with, and, moreover, the fluid runs out alongside the catheter as soon as or before the cavity is filled. The only sources of danger are that too large a catheter may carelessly be employed, or that the bottle may thoughtlessly be raised too high. But at the same time it must be remembered that a considerable number of cases are on record where the injection, though it has been perhaps frequently repeated without serious consequences, has led to sudden death or the most alarming symptoms. One such case I saw years ago at University College Hospital; it was that of a small boy, whose cavity, reduced at the time to very small dimensions, was daily washed out, by means of a syringe, with a weak solution of iodine. The boy used to sit up while it was being done, and one day during the process he suddenly died, and we were not able at the post-mortem examination to find any cause whatever for the disaster. The cavity was small, surrounded by thick fibrous walls, and there was no sign of thrombosis to be discovered. In the tenth volume of the Clinical Society's Transactions (1876) is a paper on this subject by Dr. Cayley, detailing a case in which the practice was to withdraw the pus through a cannula and then to inject about four ounces of iodine solution, repeating the process several times. On one occasion six ounces were being injected into the cavity, which at the post-mortem it was found would hold twice that quantity, when the patient suddenly became deadly pale, with slow pulse, dilated pupils, and gasping breathing. This gave place to profound unconsciousness, flushed face, rapid pulse and respiration, and right-sided convulsions. The temperature rose to 107°, and he died sixteen hours after the injection; but the necropsy revealed nothing to account for the death. Dr. Cayley refers to several other cases more or less similar, some ending fatally, and others recovering from the most imminent danger; and I well recollect at the discussion which followed not a few speakers referred to cases which had come under their own cognisance in which similar results had followed. Now, though two explanations have been hazarded for these phenomena, according to which they may be attributed either to thrombosis or to reflex irritation, it must be owned that we are altogether without a satisfactory one. It does not appear to depend upon the fluid employed, for it has occurred when carbolic acid, iodine, or even simple water were being used; it does not depend upon the side of the chest affected, for some cases have been left-sided and others right; and it has always happened in cases in which the injection had been frequently practised before without serious consequences. We are therefore at present left with the fact that a serious issue may any day follow what appears to be the simplest of surgical procedures. It is this which makes me not only avoid injections except when it seems urgently indicated, but also rather shy of resorting to very heroic measures in the way of scraping the pleura. It is true that I have frequently mopped out the surface with a strong solution of chloride of zinc (forty grains to the ounce), and have not seen any evil results follow; but I always do it with a degree of dread, and endeavour to apply it as gently as possible—not with a syringe, but with a piece of lint or a sponge.

Having, then, done all that seems safe or wise in the way of purification (and amongst the simplest and safest means I must not omit to mention the thorough application of iodoform to the surface), the next thing is the introduction of the drainage-tube. Bearing in mind what has been said about the method of closure of the cavity, it is clear that the tube must be placed as high up in the cavity as possible; that is, at the upper rather than the lower part of the opening that has been made. It may sometimes seem advisable, in order to facilitate this, to stitch up the lower part of the wound, as was done in the case of J. H. (Table II., Case 4). In this case it will be advisable to introduce a small and temporary drain below the part which is sutured, while the main and more permanent tube comes out above. A few stitches may often be introduced into the wound with advantage.

I will now, in conclusion, give a very brief account of the cases in which I have endeavoured to follow this line of treatment; but I must repeat a doubt as to whether it has been in all of them so fully carried out as the necessities of the cases may have required. This, perhaps, accounts for the comparatively unsatisfactory results which I have to record—namely, that only one of the cases is at the present moment actually healed, and that only after the making of a second posterior opening by another surgeon. For all that, I think it highly probable that some, if not all except J. H. (Table II., Case 4) and J. E. (Case 1), who will probably never be completely cured, have a very good chance of permanently closing in the course of time. In consequence of what has been done, all of them (with the exception, perhaps, of Alfred D., Case 7, who was not in a very bad state before, and Jane E., Case 1) have been very markedly improved as regards their general condition, so that, even if no more good should follow, I feel quite encouraged to continue this line of treatment, hoping to carry it out yet more efficiently in future cases with confidence of thus obtaining better results.

CASE 1.—Jane E——, aged seven, a delicate, anæmic, emaciated child, is under my care at University College Hospital. She has an empyema of very old standing, and has marked clubbing of fingers and nose. In August, 1884, there was a sinus discharging putrid pus below the left nipple, and reaching up into a cavity which occupied the front and side of the left chest, and extended to the right of the sternum. There was but little deformity behind, but a sharp ridge in front, parallel with the sternum. On August 12th, 1884, I removed from two to three inches of the third, fourth, and fifth ribs, including the whole of the cartilage (the length may have been greater). This has caused a great improvement in the deformity; but the cavity on the right of the sternum could never be satisfactorily dealt with as it lay immediately in front of the arch of the aorta. She had a slight attack of pneumonia while under treatment, but it soon passed off; she is now (October, 1885) in fair general health; but the sinus continues to discharge fetid pus, and, in fact, it cannot be said that she is much better for the operation except as regards the deformity.

CASE 2.—Harriet S——, aged eleven, came under my care at University College Hospital in August 1883, with an old empyema on the right side of seven years standing, and a sinus below the angle of the scapula leading to a small cavity. There was much flattening of the chest and clubbing. Parts of the eighth rib (2½ in.), ninth (1¼ in.), and tenth (¾ in.) were removed. The wound rapidly closed and a mere sinus remained, but when last seen, several months after, it had not completely closed.

CASE 3.—Miss C——, aged four, had an empyema of two years' standing. I saw her with Dr. Barlow in April, 1885. There was a very imperfect opening below and outside the nipple on the left side leading to a cavity, which reached the apex of the pleura, but did not extend to the back. I removed pieces of two ribs (fifth and sixth or sixth and seventh) and left a large gaping wound into the cavity, but I hear that it has not yet completely closed, though the child's general health has much improved.

CASE 4.—James H——, aged ten, was admitted to the Brompton Hospital on Dec. 28th, 1883, with a left empyema, which had lasted for five years. He was pale and anæmic, with much clubbing and extraordinary contraction of the chest. There were two fistulous openings, one near the nipple, and the other in the second space near the sternum, from which there was a daily discharge of from one to two ounces of fetid pus. On Feb. 7th, 1884, I removed pieces of the fifth, sixth, seventh, and eighth ribs, with the subjacent pleura, opening into a cavity, containing six to seven ounces of fetid pus. The cavity involved practically the whole pleura. The result of this was an almost complete closure of the lower part of the cavity, a mere sinus leading up to the dome of the pleura. Sponge-grafting was then tried, but failed. On July 11th, 1884, several more pieces of rib were removed, some probably from those previously excised, some from the third and fourth. This operation resulted in a more complete closure of the lower part, and as there seemed no prospect of the upper part closing, on Nov. 20th I made with great difficulty an opening in the first intercostal space, and introduced a straight celluloid tube, two

inches and a half long, into the upper part of the pleura. This the boy still wears, and will probably have to continue to do so. All the lower openings are now closed, and his general health when he left the hospital was excellent.

CASE 5.—Charles W——, aged twenty-five, was admitted more than two years ago into University College Hospital with a chronic empyema, which was opened by an incision in the right axilla in March, 1883. In May, 1884, Mr. Marshall removed portions one inch long of the sixth, seventh, and eighth ribs, opening freely a cavity containing about eight ounces of pus. In March, 1885, he had still a sinus leading to a cavity of comparatively small size, not reaching to the apex and not extending far forwards; and on April 2nd I removed portions of three ribs, 1½ in., 2½ in., and ¾ in. respectively, the longest piece being in the middle and the smallest above. The patient at this time had some albuminoid changes of the viscera, as shown by a large liver and some albumen in the urine, but his general condition was good. The result of this was a great diminution in the size of the cavity and falling in of the chest; but as there was clearly a cavity of some size left, Mr. Beck, under whose care the patient has passed, removed on Oct. 15th 1½ in. of the fifth, 2½ in. of the sixth, 2½ in. of the seventh, 1¾ in. of the eighth, and 1¼ in. of the ninth ribs, with the subjacent pleura. This has practically taken away the bony part of all the external wall of the cavity; and as increased falling in is rapidly occurring, it is probable that this will lead to complete closure of the cavity.

CASE 6.—Francis S——, aged twenty-three, was admitted into the Brompton Hospital in June, 1883, with empyema of two years' standing, which he was expectorating. The general condition was very bad, and the expectoration very profuse. On September 6th I opened the pleura in the right axilla, excising a portion of the rib. By November 15th he had been healed some time, but expectoration had recommenced a few days previously, so the wound was reopened. Healing was almost complete, when expectoration again set in; so on Feb. 28th, 1884, I excised three inches of the two ribs which formed the wall of the cavity. The patient greatly improved, but left the hospital with a sinus in June. Since this time he has come under the care of Mr. Cross of Clifton, who made a second opening further back, the result of which has been the closure of the cavity.

CASE 7.—Alfred D——, aged thirty-six, was admitted into Brompton Hospital on July 15th, 1885, with a very chronic empyema. There was an opening in the back leading to a straight sinus five or six inches long, passing upwards and backwards, but there was no regular cavity. A piece of rib about four inches long was removed from the chest wall over this sinus, which it is hoped will prove sufficient, and a large drainage-tube was inserted, but at present the sinus is not closed. [This patient was shown at the lecture.]

## CICATRICIAL STRICTURE OF THE ŒSOPHAGUS,

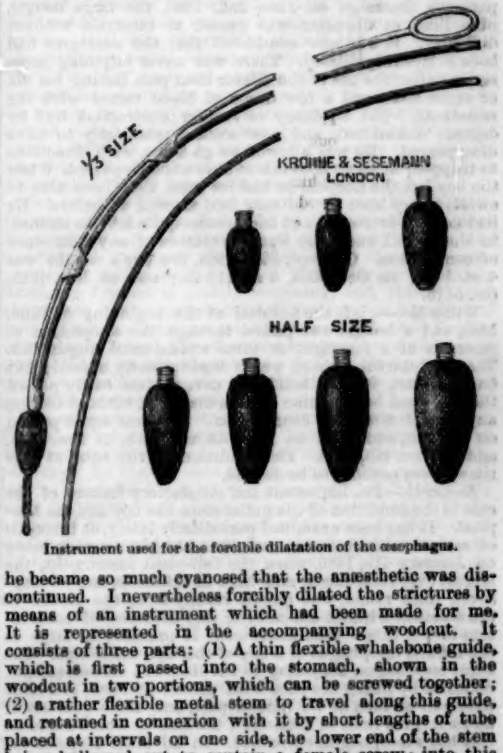
### TREATED BY GRADUAL AND AFTERWARDS BY FORCIBLE DILATATION.

By SIR WILLIAM MAC CORMAC,
SURGEON TO ST. THOMAS'S HOSPITAL.

WILLIAM M——, aged twelve, was first admitted to St. Thomas's Hospital on Aug. 13th, 1884. Three-quarters of an hour before admission he had swallowed some strong liquor potassæ in mistake for vinegar. He was discharged on Aug. 28th. He then felt some soreness of the mouth and throat and slight trouble in swallowing. This passed off, and for a week subsequently he had no difficulty in taking food, but he then noticed a gradually increasing difficulty in swallowing, until his readmission on Sept. 28th. At this time he stated he had been totally unable to swallow for the preceding twenty-four hours, and this continued till the following afternoon (the 29th), when he was able to swallow a little cocoa and some soaked bread. He had been fast losing flesh, and presented marked retraction of the abdomen, although by no means emaciated. Nutrient enemata were ordered to be administered every six hours. The patient was then transferred from the medical to the surgical ward, as a case probably requiring gastrostomy.

On Sept. 29th I examined the œsophagus, and discovered a tight stricture, only admitting, after many trials and great difficulty, a No. 4 urethral bougie. The obstruction was six inches from the edge of the upper teeth. A second less marked constriction was felt lower down. The bougie was passed into the stomach, and the patient was somewhat benefited, being afterwards able to swallow milk more easily and without pain. Bougies were now passed regularly, and gradually increased in size until Oct. 6th, when a No. 11 bougie could be introduced. And now, by means of an olive-ended instrument, a third well-marked constriction, not appreciable before, was discovered near the cardiac orifice of the stomach. This period of treatment need not be dwelt upon in further detail. Urethral and afterwards small-sized œsophageal bougies were passed twice a week, the patient's power of swallowing improved, and he was able to take soft food, such as bread-and-butter and minced meat, without much trouble. In the four weeks ending Oct. 30th he gained ten pounds in weight. It was found, however, to be quite impracticable to get further than No. 11; the strictures refused to dilate beyond this point. It was therefore determined, all efforts by means of gradual dilatation appearing futile, to attempt to dilate the strictures forcibly.

On Oct. 31st the patient was partially anæsthetised, but




Instrument used for the forcible dilatation of the œsophagus.

he became so much cyanosed that the anæsthetic was discontinued. I nevertheless forcibly dilated the strictures by means of an instrument which had been made for me. It is represented in the accompanying woodcut. It consists of three parts: (1) A thin flexible whalebone guide, which is first passed into the stomach, shown in the woodcut in two portions, which can be screwed together; (2) a rather flexible metal stem to travel along this guide, and retained in connexion with it by short lengths of tube placed at intervals on one side, the lower end of the stem being hollowed out to contain a female screw; into this may be screwed in succession (3) a series of olive-shaped heads terminating at the upper extremity with a male screw; these are graduated in size, and perforated from base to apex to run over the guide. The instrument was used thus:—The guide having been first passed into the stomach, one of the olive-shaped heads, the diameter of a No. 17 bougie, was screwed to the end of the metallic stem, passed along the guide into the stomach, and moved two or three times up and down the œsophagus. The tube was thus at once forcibly dilated, and the several obstructions could be felt to yield in succession. The amount of force employed was not excessive, but greater far than one would have ventured upon in the absence of the conviction that the guide prevented all chance of a false passage being made. A few drops of blood were afterwards coughed up; there was also a little pain, which soon subsided; other-

wise no ill effects whatever were experienced. From Oct. 31st to Dec. 7th a bougie No. 16 on the urethral scale was passed every other day, and the patient's power of swallowing improved. On the last-mentioned day a No. 18 bougie could be passed through all three strictures, and No. 19 through the upper two. On Dec. 18th the patient was anæsthetised, and by means of the instrument above described the œsophagus was dilated to the size of a No. 26 urethral scale. A No. 24 olive-headed bougie was afterwards easily passed into the stomach. From this date bougies were passed almost daily. About the end of January I again used the dilator and forcibly stretched the tube with an olive seven lines in diameter. The operation was repeated on February 27th, when one eight lines in diameter was passed through to the stomach, another of nine lines in diameter passing only the first stricture. No. 26 olive-ended sound was then easily passed every second or third day through all three strictures. On April 14th the boy was again put under chloroform and the guide introduced, but owing to violent vomiting it could not be retained long enough for the dilator to be adequately used; but an olive nine lines in diameter was forced through the obstructions. An ordinary œsophageal bougie, tapering to the point and eight lines in diameter at its thickest part, could be easily passed. For a few weeks previous to the patient's discharge on June 2nd, 1885, the large bougie, nine lines in diameter was passed at intervals without difficulty. It was now considered that the strictures had been sufficiently dilated. There was never anything more serious after the use of the dilator than pain lasting for six or seven hours and a few drops of blood mixed with the secretions. The tendency to further contraction had by degrees diminished, and now seemed practically to have disappeared. He was allowed to go home, with directions to reappear at short intervals to have a bougie passed. When the boy left the hospital he had for some time been able to swallow any kind of ordinary food as well as before. He had no pain or trouble, and had become quite fat; he seemed, in short, well, and there was no evidence of any recurrence of contraction. On Sept. 28th, 1884, the boy's weight was 4 st. 1 lb.; on Oct. 30th, 4 st. 11½ lb.; and on Dec. 15th, 6st. 5½ lb.

Willie M——, left the hospital at the beginning of June, 1885, and a bougie was passed through the œsophagus at intervals of a fortnight or three weeks, until August 6th. Then an interval of nine weeks inadvertently ensued; but on my return from a holiday I nevertheless easily passed the full-sized bougie, nine lines in diameter, without feeling any sign of returning constriction. This was again passed on Oct. 8th, and again on Nov. 5th and 24th, on Dec. 30th, and on Jan. 4th, 1886. The condition of the tube at this time leaves nothing to be desired.

*Remarks.*—The important and satisfactory feature of the case is the condition of the gullet since the boy left the hospital. It has been examined periodically lately, at intervals of several weeks between each time, the last occasion being on January 4th, 1886, when the full-sized instrument, the largest ever introduced, nine lines in thickness and twenty-seven lines round, was passed readily from the mouth to the stomach without difficulty or any evidence of contraction in the tube. This instrument is probably as large as the normal œsophagus of a boy of this age will admit. The adult œsophagus, according to Dr. Mouton's measurements, obtained by filling the tube with plaster-of-Paris, is a little over half an inch at its narrow part, and three-quarters of an inch (nine lines in diameter), the size to which I dilated this boy's œsophagus, elsewhere. In all other respects the lad feels well, is stout and well-nourished, and able to swallow his food as well as he could before the accident took place. As now for a period of seven months no tendency to a recurrence of the contraction has shown itself, a cure may reasonably be counted upon.

The operation of gastrostomy was at first contemplated in this case, as the contraction in the gullet was extreme; indeed the boy was sent to me with that object in view. Trendelenberg has performed this operation in a case of the kind, and the patient, also a boy, was alive and well years afterwards; but he was compelled to feed himself entirely through the artificial opening, the food being first masticated in the mouth and then spat down a tube into the stomach. How incomparably superior the condition of my patient is does not require to be insisted upon. I took care to perform the overstretching or forcible dilatation in several successive operations about four in all, so as to better avoid the risk of infiltration or extravasation into the cellular tissue of the neck, which might have been incurred by doing over-much at one time. So far as may be judged by the result of one case the method seems safe, and in this instance it has certainly proved successful. I should scarcely have performed these forcible dilatations had not the method of gradual dilatation completely failed to carry one further than the size of a No. 11 urethral bougie. I preferred this method to the use of the œsophagotome introduced into practice by Maisonneuve. Its employment has been attended with very serious risk of mediastinal or pleural abscess, or of possibly uncontrollable hæmorrhage. Of seventeen cases recorded, four of these patients died within fifteen days of the operation, and it is probable that unfavourable results followed in some of the other cases. After partial dilatation had been accomplished there was no pressing need for so serious a measure as gastrostomy at this stage of the malady; but by the means adopted the boy had been only very partially relieved, and the contraction would have been pretty sure to reappear as soon as he left the hospital. It was needful, therefore, to attempt to secure some more permanent benefit for him, and this appears to have been permanently realised by the method of forcible dilatation of the œsophagus.

## ON A NEW METHOD OF INHALATION AND A NEW FORM OF APPARATUS.

BY ARTHUR HILL HASSALL, M.D. LOND.,

LATE SENIOR PHYSICIAN TO THE ROYAL FREE HOSPITAL, CONSULTING PHYSICIAN TO AND FOUNDER OF THE NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST ON THE SEPARATE PRINCIPLE.

IT is possible that the method of inhalation which I am about to describe may have been already employed in an imperfect manner; but, so far as I am aware, the principles on which it is based have not been described, and thus the method has not been reduced to a system.

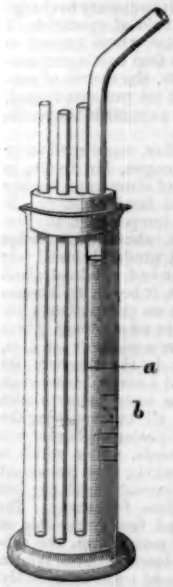
The air, owing to the law of the diffusion of gases and vapours, contains a variable quantity of the vapour of water; the scale from the point at which the air is entirely free from moisture to that at which it becomes saturated with the vapour, and will therefore hold no more, has been divided into 100 parts or degrees, "0" representing perfectly dry air and "100" the point of saturation. The relative humidity of the air is determined mainly by the rainfall, temperature, and the pressure of the atmosphere. Bearing in mind the preceding particulars, it occurred to me that, if air more or less dry were passed through a medicated solution, it would take up an amount of that solution sufficient for medical purposes. In order to test whether this supposition was correct or not, I devised the following apparatus. This consisted of a glass cylinder, nine inches high and nearly two inches in diameter, closed at the top by an accurately fitting cork. In the cork were inserted four tubes; one of these, larger than the rest, pierced the cork and entered the cylinder for about three-quarters of an inch; the other three were much smaller and longer, reaching almost to the bottom of the cylinder. In this itself were placed 175 cubic centimetres, equal to 2700 grain measures of a mixture consisting of distilled water and 17½ grammes of pure crystallised carbolic acid. The three smaller tubes were used in preference to one large one, because by this arrangement the air passed into the solution in the form of a number of small instead (if only one tube had been used) of a few large bubbles. In the latter case the air would not have been brought into sufficient contact with the water, and such a commotion would have been created as to cause spirting of the liquid and the liability of its occasional entrance into the mouth. This occurrence is entirely avoided provided that the due proportions of the apparatus are observed and a sufficient space be left between the surface of the medicated liquid and the end of the tube which forms the mouthpiece. When this apparatus is in operation the air is drawn through the three small tubes; from the bottom of these it freely escapes, ascending through the liquid in bubbles, which burst on the surface, and the air thus charged with the medicament is inhaled by means of the tube placed in the mouth, as in the accompanying figure.

The earlier experiments about to be detailed were made

with the above-described simple apparatus; in other experiments the three small tubes were attached by means of indiarubber unions to a large tube filled with dried chloride of calcium, the object being of course to deprive the air of the moisture which it contained, and thereby to increase its power of absorbing the solution through which it was passed. Except when otherwise stated, the inhaler was charged with 175 cubic centimetres of a mixture of water and carbolic acid in the proportion of 10 grammes of the acid in 100 cubic centimetres of the mixture. The inhalation was continued for one hour, and the nares were kept closed.

*Experiment 1.*—Temperature of the air 58° F.; relative humidity 79°. The carbolic acid was dissolved in a mixture of glycerine and water. It was found at the end of an hour's inhalation that 3·5 cubic centimetres of the mixture (= 54·0 grain measures only) had disappeared; also, that the residual mixture possessed nearly the same strength as at first. The 3·5 cubic centimetres of the mixture therefore contained 5·4 grains of carbolic acid.

*Experiment 2.*—Temperature 58° F.; relative humidity 77°. In this case no glycerine was used, and the mixture in place of being clear was milky, owing to a part of the carbolic acid being suspended in it in the form of minute droplets, which under the microscope resembled those of milk. The loss in this case was the same as in the previous case, and the residual mixture was found to possess the same strength as at first.




*Experiment 3.*—Temperature 59° F.; relative humidity 60°. The nares in this case were not closed. Loss 6·0 cubic centimetres, containing 9·2 grains of carbolic acid.

*Experiment 4.*—Temperature of air 88° F.; relative humidity 81°. The air was passed through about half an ounce of chloride of calcium; the loss amounted to 7 cubic centimetres, and since the mixture after inhalation was found to possess precisely the same strength as before, the loss of carbolic acid amounted to 10·8 grains.

*Experiment 5.*—Temperature 57° F.; relative humidity 82·5°. In this experiment the carbolic acid was increased to 15 grammes in 100 cubic centimetres—that is, the mixture was made half as strong again and a larger quantity of chloride of calcium was used. The loss was 11·5 cubic centimetres, and since the residual mixture retained its original strength 26·6 grains of carbolic acid had disappeared.

*Experiment 6.*—Temperature 60° F.; relative humidity 55°; the air being consequently decidedly dry. In this case also 15 grammes of acid were contained in 100 cubic centimetres of the mixture. The air was passed as before through chloride of calcium, and the apparatus was placed in a jug of hot water, the temperature of the liquid in the apparatus rising at first to 70° F. The vapour which came over was very strong, especially at first, and the loss amounted to 12·5 cubic centimetres containing 28·9 grains of carbolic acid.

*Experiment 7.*—Temperature 57° F.; relative humidity 77°. The nares in this experiment were not closed. The mixture was of the same strength as in the first experiments, and the air was passed through chloride of calcium. The loss amounted to 8·0 cubic centimetres, representing, as confirmed by analysis, 12·3 grains of carbolic acid.

*Experiment 8.*—The conditions were precisely the same as in the previous case, only that the nares were kept closed. The loss was 7·25 cubic centimetres, representing 11·2 grains of carbolic acid. In both these experiments the foot of the glass cylinder was placed in a shallow dish of warm water, which raised the temperature of the mixture to a small extent only. These two experiments show that it makes little difference so far as the loss of carbolic acid is concerned, whether the nares are closed or allowed to remain open.

*Experiment 9.*—Temperature 57° F.; relative humidity 80°. The apparatus was placed in a jug containing hot water, which at the commencement of the inhalation had a temperature of 120°. The inhalation at first had to be carried on slowly and intermittently, as the air was so strongly charged with the acid as to cause the throat to become painful. At the end of half an hour it was found that 8·5 cubic centimetres of the mixture were vapourised, this being at the rate of 17 cubic centimetres in the hour, representing a loss of 26·2 grains of carbolic acid.

*Experiment 10.*—Temperature 49° F.; relative humidity 80°. The chloride of calcium was dispensed with, the nares were not closed, and the inhaler was placed in a jug of water which had a temperature of 120°. This heat caused the temperature of the carbolic acid solution to rise to 62° F. The air inspired contained so much carbolic acid that in a few minutes it caused the throat to become sore and painful. At the end of thirty minutes 8·5 cubic centimetres of the mixture had passed over, or 17·5 cubic centimetres, containing 27·0 grains, in an hour. This and the previous experiment show in a marked manner the effect of even a very moderate elevation of temperature in increasing the amount of watery vapour and of acid in the air inspired. The residual mixture was as strong after the inhalation as before. It is therefore evident that if the temperature of the medicated liquid be raised even a few degrees in the simple manner described, passing the air over chloride of calcium and closing the nares may both be dispensed with. It should be stated that the respiratory capacity of the person using this inhaler was fully one-third below the normal standard; had it been of the average capacity, the amounts of carbolic acid inhaled, as recorded in the above experiment, would have been considerably increased.

The results of the above experiments are highly satisfactory. They show, first, that if the air contain much moisture and the temperature of the liquid is low, the quantity of medicated liquid taken up by the air is comparatively small; secondly, that if the air be artificially dried, the amount is greatly increased; and, thirdly, they show that if the temperature of the solution be raised to even a very moderate extent, the quantity is still further augmented; indeed, the effect of warming the solution is so great that it is not necessary to dry the air by means of chloride of calcium at all, and the apparatus may be employed in its simplest form.

The apparatus used in the experiments I made myself. For the chloride of calcium tube I took the chimney of an ordinary petroleum lamp: this was closed below by a cork, perforated for the entrance of three small tubes, corresponding in size with those of the glass cylinder, the two sets being united by small pieces of indiarubber tubing. At the bottom of the long narrow part of the chimney a piece of muslin was placed to prevent the chloride of calcium blocking up the tubes; the chimney itself was filled, or nearly so, with the lime salt, which, when properly dried, may be used repeatedly.

It is manifest therefore, from the experiments detailed, that by means of the inhaler I have devised it is possible to introduce into the lungs a great variety of medicaments, and this to such an extent that the quantities would have to be carefully regulated in order to avoid any undesirable consequences. That the medicaments do really enter the lungs is unquestionable, because if the nostrils be closed, as they were in most of the experiments, respiration is almost entirely carried on by the air which has been made to pass through the medicated solution. The nostrils may be easily closed, either by means of the fingers or by a small clip, such as chemists use to close indiarubber tubes; but the medicated air may be made to enter the lungs freely enough, and of sufficient strength for all purposes, even when the nares are not closed. Of course a portion of the medicament carried over by the air becomes, in its passage towards the lungs, deposited on the mucous membrane of the throat and the other parts with which it may come into contact situated above the epiglottis. When 10 grammes of carbolic acid are made up with distilled water to 100 cubic centimetres, part of the acid remains undissolved if the water be of a somewhat low temperature; when the mixture is agitated, however, it becomes opaque and white, like milk, the undissolved portion of the acid being in the form of globules of various sizes. When the apparatus is in use, the milky condition of the liquid is maintained, and the globules freely

pass over in the carbolised air at each inspiration. When the temperature of the mixture is raised, the acid becomes dissolved and the mixture loses its milky character, regaining it again as it cools. This complete solution of the carbolic acid is readily effected by simply placing the glass cylinder in a jug of water at a temperature of about 120° F.

Certain modifications of the apparatus were experimented with. In one case a longer cylinder was employed, with, of course, longer tubes and a greater quantity of the mixture. In another the air was passed through two cylinders placed side by side, the idea being that in both cases the air would become charged to a larger extent with the carbolic acid; but the results were disappointing, and it was found that while the smaller apparatus requires but little exertion to work it, much greater force is required in the case of both the modifications referred to.

In using this apparatus the inspirations should be slow, deep, and effective, so as to cause full expansion of the lungs, whereby at length the power of inspiration is increased and strengthened, a result highly beneficial in many cases. The cylinder should be graduated in spaces of 10 cubic centimetres, so that the amount of the medicated solution inspired may be accurately measured. Once charged, the apparatus may be used several times in succession without being refilled, trouble thereby being avoided.

This inhaler is, I believe, one of the most effective which has hitherto been devised, and if the tubercle bacillus be the cause of consumption, and if it be possible to destroy this bacillus by means of medicaments, this apparatus is capable of conveying to the lungs the requisite amount of any medicament which possesses even a lower degree of volatility, such as do most of the remedies employed in affections of the lungs. For non-volatile substances the inhaler is of course not effective.

It having come to my knowledge that a difficulty has been experienced in procuring my oral and oro-nasal inhalers, I wish to be permitted to state that they may now be obtained of Messrs. Maw, Sons, and Thompson.

San Remo.

ON THE

# REMOVAL OF DEEP-SEATED TUMOURS OF THE NECK.

By ARTHUR E. BARKER, F.R.C.S.,

SURGEON TO UNIVERSITY COLLEGE HOSPITAL, AND TEACHER OF PRACTICAL SURGERY AT UNIVERSITY COLLEGE.

WITHIN the last year or so a good many cases have presented themselves to me which have offered the opportunity of testing an opinion I have long held—namely, that under the new *régime* of antiseptic surgery deep-seated tumours of the neck may be dealt with far more freely than is generally supposed, in spite of the advance we have already made. In other words, I believe the conclusion justified that tumours of the neck which a few years ago would have been held to be incurable from their deep situation and relations may now be removed without extreme difficulty, and with the best results. This is but another way of saying that when we use proper antiseptic precautions the old nightmare of deep-seated cellulitis in the neck need have no terrors for us, that with anæsthetics and deliberate dissection bleeding and shock are not prominent dangers, and that we are only limited now in the extent to which we shall attempt the removal of these tumours by anatomical considerations. Even the latter, I think, will be shown by some of the following cases to be more elastic than many are inclined to believe. Four cases are selected as being the last and most serious, and as having all been treated in the same way, both during and after operation.[1] They offer, besides, a basis for the above reasoning, some details which appear worth notice. In the first place, all the tumours lay beneath the sterno-mastoid muscle, and on this ground alone would a few years ago have been considered as outside the range of operation. In Case 1, so deep seated was the growth that the scalenus anticus muscle and internal jugular vein were implicated in it, and had to be cut away with it above and below after careful double ligature of the vein. Again, it is noticeable that there were no symptoms either during or after operation that any of the nerves of the neck had been injured, even in the last case, in which the phrenic and other important trunks were in relation to the tumour. Nor was there any evidence that ligature of one or more of the larger veins of the neck gave rise to trouble of any kind. Further, we find these wounds healing from bottom to surface by first intention as simply as the least important incision in other parts. Again, it is shown that the omission of the carbolic spray in these particular cases for special reasons did not leave any gap in the otherwise complete antiseptic precautions, and that the substitution of salicylic wool for carbolised gauze admitted of more decided, more elastic, and more evenly applied pressure being applied on and about the wound than would have been borne with the inelastic gauze. This last point is, I venture to think, of no little importance. Finally, it has not escaped my notice that in most of these cases there has been some transient rise of temperature within the first twenty-four hours. This I have closely watched, but as it has been unaccompanied by any signs of septic absorption, such as headache, malaise, sickness, anorexia, pain, throbbing, or tenderness about the wound, or any constitutional disturbance, I have felt little or no uneasiness in any case, and have not felt it necessary to change the dressings at once to inspect the field of operation. I have put the pyrexia down in each case where present to tension from serum in the wound, the firm bandaging contributing perhaps a little. At all events, the course of convalescence and the sequel showed that no pus was formed, and that nothing was left to be desired as regards the results immediate and remote.

CASE 1.—Mr. E. A. T——, aged thirty-five, was placed under my care by the kindness of my colleague, Mr. Heath, in February, 1885. He was a gentleman of strong and healthy appearance, with a good personal and family history. In January, 1883, he first noticed a small lump about the size of a pea on the right side of the neck, about three inches from the middle line. This increased gradually until four months before I first saw him, when it had attained about the size of an egg. At Christmas, 1884, it began to increase very rapidly, and soon became as large as the patient's fist. No pain was experienced nor difficulty in swallowing. About a year before there was loss of voice for a week or ten days, but at that time there was no change in the tumour. On examination on February 24th, I found a conical tumour on the right side of the neck with the apex below almost resting on the clavicle, and the base all but touching the lower border of the jaw above. Its posterior border was overlapped by the sterno-mastoid muscle, under which it ran for a considerable distance. In front the most prominent part reached the middle line of the thyroid cartilage; but above and below this point its outline fell away. The skin over the tumour was healthy and freely movable on it, and the growth itself was freely movable on the subjacent parts. It did not move up and down with the larynx. The vessels of the neck were not pressed upon appreciably. The swelling was cystic above, but apparently solid below and behind, and was accompanied by two distinctly enlarged glands lying in the posterior triangle of the neck immediately above the clavicle. Neither the pharynx nor mouth were encroached upon in any way. On aspirating the part, I drew off three ounces of dark-brown serous fluid, followed by about a drachm of pure blood; but before the patient had left my consulting-room the sac had filled up again, presumably with blood. In the aspirated liquid were several flocculent masses, which showed under the microscope a delicate papillomatous structure. From this examination of the growth I came to the conclusion that it was a cystic sarcoma, but was uncertain as to the exact point of origin. In consultation with Mr. Erichsen, who endorsed this diagnosis, it was determined to remove it. This I did on March 12th, 1885, as follows. Adopting all the most careful antiseptic precautions except the spray, I made an incision over the anterior border of the sterno-mastoid from an inch below the lobe of the right ear just to the sterno-clavicular articulation. With a little dissection the tumour was laid bare. I now made a second incision from the termination of the first towards the symphysis of the jaw for about two inches. The flap so formed was turned forwards and the dissection was carried

[1] I am indebted to Mr. F. Penrose for the abstracts of the cases on which these notes are based.

deeper. Here some small vessels spouted and were secured, as well as some small veins. The descendens noni nerve was found adherent to the tumour, and was dissected off. Deeper down the internal jugular vein was found to be involved in the growth, and seeing this I ligatured it below the mass with a double ligature. I then traced the distal part in its surroundings up to its bifurcation into two trunks, presumably the facial communicating branch with the temporal and the continuation of the internal jugular itself, and these being tied, the lower part, equalling about an inch and a half, was left in the wall of the tumour between the two ligatures. At this stage of the dissection the thin cyst burst and gave exit to dark-brown fluid, some clots, and some shreds of solid growth. This collapse of the cyst made the deeper part of the dissection now easier than would otherwise have been the case; although, had I not been careful to prevent it in the earlier part of the operation, I should have been completely baffled in attempting to separate its thin walls from the surrounding structures. The tumour was now found adherent to the scalenus anticus muscle, the middle portion of which had to be removed with the growth, which came away easily on the division of the muscle above and below. Leaving a carbolised sponge in the large resulting wound, the glands in the posterior triangle were removed by an incision just above the clavicle. Through the incision I passed a drainage-tube under the sterno-mastoid into the larger cavity, and then brought the skin wounds together with silk sutures. Before doing this the whole space was well dried out with sponges and dusted with iodoform. I now carefully adjusted pads of salicylic wool over the seat of operation, so as to bring all the wounded surfaces firmly into apposition, and over these pads I placed a very large quantity of wool, in order to be able to exert considerable pressure by bandages while allowing a certain amount of play of the parts for respiration and deglutition. The tumour removed consisted of a solid mass about the size of a Tangerine orange, from which a smooth-walled cyst projected of about the size of an ordinary orange; into this a soft, friable, villous mass projected from the solid portion. The glands were evenly enlarged, and homogeneous on section. After the operation the patient spent a very good night, and suffered no pain. The wound was dressed for the first time on the sixth day, and was found united almost completely by first intention. There was a little serous oozing from the drainage-tubes, but no pus. Both tubes were shortened, and the part was dressed as before. These dressings were again changed on the tenth day, and a trace of turbid fluid, hardly pus, was found about the drainage opening. The latter was washed, and all was dressed as previously. The next day, as the whole wound had united soundly except where the tubes lay, they were removed. On the thirteenth day the drainage openings were closed, and the patient was up on the fourteenth day, quite well, and went home on April 1st, feeling no inconvenience about the seat of operation. The temperature had risen on the evening of operation to 100·6°, but was subsequently usually below 100°. On the eighth day it rose, for some reason, to 102°, but fell almost immediately, remaining nearly normal for the rest of the patient's sojourn in bed. No symptoms accompanied these rises, and the wound showed nothing to account for them. In short, convalescence was uninterrupted by anything giving the slightest cause for anxiety. During the operation only a mere trace of blood was lost, and this more than anything accounts for the fact that even the deepest part of this very deep dissection in the neck gave very little more trouble than the most superficial. The fact that the scalenus anticus was divided close to its origin and not far from its insertion, and removed to this extent, is a sufficient indication of the depth of this dissection and of the important structures encroached upon by the tumour, as also the fact that the internal jugular was doubly ligatured and severed designedly. Moreover, it should not be forgotten that the sterno-mastoid muscle was not divided, and that the whole field of operation lay practically beneath it, and yet the walls of the large resulting cavity came together under pressure and healed by first intention, without any bagging of fluid, as might possibly have taken place had not firm pressure been kept up upon its walls throughout the healing process. It is interesting to speculate as to what became of the phrenic nerve. The distortion of parts by the tumour in its growth prevented any certain conclusion being formed upon this point. This much may be said, that during the dissecting off of one considerable nerve from the anterior and inner aspect of the growth respiration was noticed to become of a sobbing character, becoming quite normal again when this was completed and before the close of the operation. One considerable nerve is also noted to have been divided of necessity in the middle of the operation, but I do not believe this could have been the phrenic from its situation. No symptoms referable either to division of nerves or excision of the internal jugular vein were observed after operation, although closely watched for. This gentleman was examined for me at his home in the autumn by a medical man who was present at the operation. He found him in perfect health, with no evidence of recurrence, and with all his sensations normal. I have since seen him, ten months after operation, and he says he feels as well as ever he did in his life. There is no trace of recurrence anywhere. The growth, which is a very peculiar one, about the exact nature of which there might be some difference of opinion, will be described shortly at the Pathological Society. I still regard it as a cystic sarcoma, starting probably in an accessory thyroid gland.

CASE 2.—H. W——, aged fifteen, was admitted into University College Hospital, under my care, on March 23rd, 1885, on account of a large swelling on the left side of the neck. He was a weakly lad, and had had several of the diseases of childhood, the last being measles in March, 1883. In the family history lumps in the neck appear in two members. In 1882 the patient first noticed lumps in the neck on the left side and under the jaw; these became hard, but not painful. During the attack of measles in March, 1883, they are said to have completely disappeared, returning again during convalescence, and then growing more rapidly than before. They soon extended behind the ear and down the neck, though almost painless and giving rise to no symptoms of pressure. On admission, March 23rd, the swelling was mainly below the body of the jaw on the left side, but overlapped the bone considerably. It extended forwards to the middle line downwards to within two inches of the clavicle, and backwards under the sterno-mastoid to within two inches of the middle line. The tumour was felt to consist of four large masses, freely movable on the subjacent parts and more or less on one another. Below the main swelling there was a chain of smaller glands running beneath the clavicle. There were no other enlargements of superficial glands to be felt either in the axillæ, groins, or on the other side of the neck, and the spleen was of normal size. The red corpuscles of the blood were 40 per cent. below the normal sthndard; the ratio of white was 4 to 400 red. On March 27th, I first made an incision from below the tip of the left ear to the left sterno-clavicular articulation directly over the tumour. The external jugular vein was then divided between two catgut ligatures. The tumour was now carefully enucleated by blunt dissection underneath the muscle, until the four great lobes shelled out of their bed, remaining still attached by the chain of smaller glands extending downwards along the great vessels of the neck, which were freely exposed. With very great care these glands were also freed from their surroundings with blunt instruments, the closeness to the great vessels demanding extreme caution. The carotid, only covered by its sheath, was exposed for a considerable distance, and the internal jugular vein from its junction with the subclavian upwards for an inch and a half was seen distended with blood. In spite of the proximity of many vessels, very little blood was lost throughout the whole operation. The glands were found to be less and less enlarged as the dissection was carried downwards, and I believe none were left behind in an abnormal state. When the whole mass had been removed, an opening was made into the resulting cavity behind the sterno-mastoid and a little above the clavicle for drainage. In this a tube was placed, as also in the lower angle of the main incision. The latter was then sewn up (a sponge being left in to the last moment), dusted with iodoform, and dressed with carefully adjusted pads of salicylic wool, so as to bring the deeper internal surfaces of the cavity into contact. Over these pads a large mass of the same wool was firmly bandaged to give strong elastic pressure. Three hours after operation the temperature was 98·2°, from which it rose steadily for six hours and a half, until at 1.30 it had reached 102·2°, then falling as steadily again to 99°; the next night it again rose to 101·8°, and remained the next day between 100° and 101·4°. The patient seemed very comfortable, slept well, and had no pain or other subjective symptoms accompanying the rise of temperature. On the 30th the wound was dressed for

the first time, and a free discharge of odourless serum was found in the wool round the tube. Otherwise the seat of operation was all that could be desired: it was soft, and not even tender. The tube was shortened and the dressings applied as before. The temperature came down after this first dressing, and remained almost normal throughout. The drainage-tube was again shortened on the 31st, and on April 4th was removed, the stitches being taken out on the 6th. After this there is nothing to note except that union appears to have been almost entirely by first intention even in the deepest part of the wound, there being no trace of pus from beginning to end of the process. The patient was out of bed on the thirteenth day, and the drainage openings were definitively closed on the nineteenth day. The mass of glands removed weighed 15½ oz., and showed no trace of inflammatory action or degeneration on section, being simply generally hypertrophied. I heard later from the lad's father that he remained quite well.

CASE 3.—W. G——, aged twenty-three, clerk, was admitted into University College Hospital on June 19th, 1885. He was a delicate-looking man, subject always to night-sweats. There was a family history of phthisis. Six weeks before admission the patient first noticed a swelling in the lower part of the neck on the left side, just above the clavicle. This rapidly increased, but there was no pain. On admission it was found to be a lobulated glandular mass, 3½ in. by 2 in., freely movable on the subjacent structures and under the skin. No other enlarged glands were to be felt in the body. Heart and lung sounds were normal. From their rapid growth and hardness it was considered possible that these nodules might consist of a new growth, and it was therefore determined to remove them. On June 24th, 1885, I first made an incision for three inches parallel to the anterior border of the trapezius down to the clavicle. Through this I was able to enucleate the entire mass of glands, including a prolongation of the chain downwards and inwards under the clavicle, which could not be detected until the body of the tumour was dislodged. This blunt dissection was very deep, and the subclavian vein was exposed for a considerable distance. Nevertheless, the glands came away entire and cleanly, and with little or no loss of blood, owing to the use of blunt instruments for dissection—i.e., director or curved elevator. The wound was dusted with iodoform after it had been well dried out, and was stitched up, a sponge being left in until the last moment. It was drained at the lower angle and then dressed with well-adjusted pads of salicylic wool as in the last case, and firmly bandaged. The arm was also fixed to the side with bandages, so as to keep the clavicle and deeper surfaces of the operation cavity at rest. The glands removed were much enlarged individually, and each had a large caseous focus; those running under the clavicle were least affected. The night after operation the patient had no pain and felt well, but did not sleep until he had some morphia on account of the patient in the next bed disturbing him. The next morning, though he still felt well, his temperature was 103·2°, pulse 100, respiration 20, and his face flushed. From this time until the evening of the day following, the temperature steadily fell, and was normal throughout afterwards. There was a complete absence of any other symptoms pointing to constitutional disturbance. For this reason I did not touch the dressings until the third day, and then only to loosen the bandages a little, leaving everything else undisturbed. The first dressing was on the seventh day, when the wound was found healed by first intention except at the drainage opening. On the fourteenth day the patient was well and up, only one point where the tube was removed being unhealed; this was quite closed on July 10th, and the next day the patient was discharged. I have seen him since, in December, 1885, six months after the operation. He then looked and felt very well, and had gained flesh and colour. There was no trace of enlargement of glands near the seat of operation, but on the opposite side of the neck some could be felt, but he said they were getting smaller.

CASE 4.—Mr. A——, aged twenty-five, came to me from Wales on June 20th last on account of a fistulous track leading from the edge of the sterno-mastoid inwards to a hard mass of caseating glands lying over the bifurcation of the great vessels of the neck. This sinus had existed for some years, and had given much trouble, especially when it closed and the matter was retained. On examination, I came to the conclusion that nothing but complete enucleation of the mass of diseased glands would give complete security against the persistence of the fistula for an indefinite time. As the patient was very anxious to be freed, and was of delicate constitution and likely to suffer from the continuous discharge and to run considerable risk of generalisation of the tubercular infection from the glands, I agreed to do what might otherwise be thought an unnecessarily severe operation—namely, to dissect down all round the glands and remove them *en bloc*. This I did in the way described in the last case through an incision running along the anterior border of the sterno-mastoid for about three inches. In this dissection the great vessels were exposed considerably, and planes under the sterno-mastoid opened freely. The glands were difficult to isolate on account of the chronic suppuration, but were removed without breaking into the inflamed area. The wound was dressed and treated as in the last two cases, and healed by first intention and without a bad symptom.

Experience in these and several other similar cases has certainly dissipated many of the apprehensions inherited from a former period, and encourages me personally to extend the sphere of operative procedure in the deeper parts of the neck very considerably.

Harley-street, W.

## ACUTE PARENCHYMATOUS MYOCARDITIS.

BY SAMUEL WEST, M.D., F.R.C.P.,

PHYSICIAN TO THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK, AND TO THE ROYAL FREE HOSPITAL; MEDICAL TUTOR AND MEDICAL REGISTRAR TO ST. BARTHOLOMEW'S HOSPITAL.

THE classifications of myocarditis are somewhat confusing. Accepting the general term of "carditis" as indicating inflammatory conditions of the heart generally, the terms "endocarditis" and "pericarditis" speak for themselves; but myocarditis, or inflammation of the solid substance or mass of the heart, is less clear; and of the classifications suggested I prefer greatly that of Virchow, who applies to myocarditis the same epithets used in distinguishing the various forms of nephritis, hepatitis, &c., and divides the whole group into the parenchymatous and interstitial varieties, each of which may occur in the acute or chronic form, and affect the whole or only part of the organ. Chronic interstitial myocarditis is what we usually speak of as fibroid disease of the heart. The small abscesses found in the heart in some forms of blood-poisoning are instances of one form of acute interstitial myocarditis. The term "parenchymatous" is open to the same objections when applied to the heart as to the kidney, and the same difficulty arises in drawing the line between inflammatory and degenerative changes; but it is a term which is in common every-day use, and which represents certain broad facts, and it may be used with advantage in reference to the heart in the same general sense.

The common classification of myocarditis into primary and secondary forms is etiological, the group of primary or idiopathic myocarditis being reserved for those cases in which no cause for the affection can be found. We do not speak any longer of idiopathic or primary nephritis, and it would be well if we ceased to apply this term to the heart. 1. Acute parenchymatous myocarditis may exist alone, and we may place with Virchow in this group all those acute changes observed in the myocardium in such severe fevers as typhus, small-pox, &c., as well as those rare cases in which the muscular substance alone is attacked in the course of rheumatic fever. To this group most of the cases to be described belong. 2. It may occur coincidently with some other acute affection of the heart—viz., pericarditis or endocarditis,—as it probably did in Case 8. 3. Lastly, it may follow some antecedent affection of the heart—old pericarditis, old endocarditis, or even chronic interstitial myocarditis.

Where acute parenchymatous inflammation passes into the chronic form and ceases to be inflammation and becomes degeneration is as difficult and perhaps as impossible to determine in the heart as in the kidney. The classification, like that of nephritis, is purely pathological. It is not perfect, but, on the whole, it is, I think, the most clear and

satisfactory. The classification of myocarditis will, therefore, stand as in the following table:—

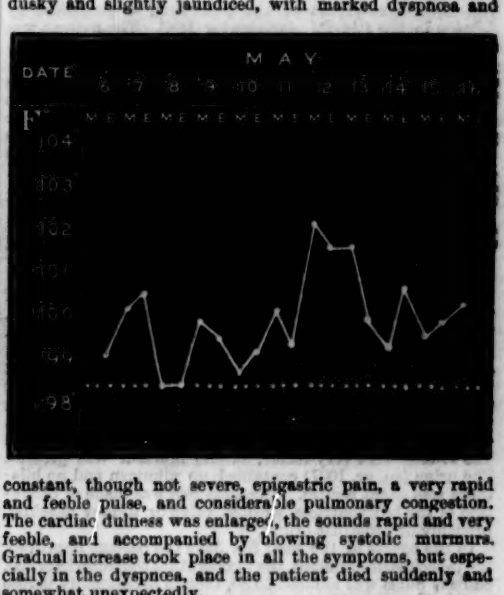
- *Myocarditis*
  - *parenchymatosa*
    - (*a*) partialis
    - (*b*) universalis
    - acuta
      1. No other part of heart attacked.
      2. In coincidence with endocarditis or pericarditis.
      3. In sequence to endocarditis, pericarditis, or even chronic interstitial myocarditis.
    - chronica — ? chronic parenchymatous degeneration.
  - interstitialis
    - acuta
      - suppurative.
      - non-suppurative.
    - chronica — fibroid disease of heart.

The cases which follow all belong, so far as post-mortem evidence is forthcoming, to the group of parenchymatous myocarditis. In only one was old interstitial change present as well.

CASE 1. *Myocarditis; no other lesion in the heart; liver cirrhotic.*—John L——, aged twenty-seven, was admitted into the Royal Free Hospital on May 6th, 1884. He had been a heavy drinker for many years, but had been in good health until about three years ago, when he was confined to bed for some weeks with rheumatism and weakness of the legs, and for this was an in-patient in the hospital under Dr. Baxter. He was an in-patient a second time a year ago under myself, suffering from general *muscular tremors* and from the effects of drink. These tremors were referred at that time to drink, aggravated perhaps by the effects of lead-poisoning, from which he was also suffering. After a few weeks these symptoms entirely disappeared. Lately the patient had been out of work and living badly. He had been much exposed to wet weather, and had doubtless been drinking. Three weeks before admission the weakness and tremulousness of the legs returned. He had at times a great feeling of *coldness* followed by perspirations, suffered much from *nausea*, and occasionally vomited. A week before admission he was much distressed with *pain* across the upper part of the abdomen (chiefly in the epigastric region), and shortly afterwards he became slightly *jaundiced*. The patient was a stout, flabby, unhealthy-looking man, with a pasty, slightly jaundiced, and dusky complexion, and puffy face. The whole body was affected with a peculiar tremulousness, increased by movement. This was most striking on the chest, where it was constant, and not in any way timed with respiration. The tongue was similarly tremulous and covered with yellow fur. Pulse 120, small and weak; respiration 32, shallow and somewhat laboured; temperature 99·5°. The heart's apex was in the nipple line, and the cardiac dulness increased upwards and to the left, but it could not be made out beyond the right edge of the sternum, probably on account of the emphysema present. Over the whole præcordial region a soft systolic murmur was present, which was heard also for some distance into the axilla. The heart sounds were audible, but weak and distant, and the pulmonary second accentuated. Slight rhonchus was heard over the whole of the lungs. The abdomen was greatly distended, and the superficial veins large, chiefly over the upper part. The liver dulness commenced at the upper border of the seventh rib, but its lower edge could be felt on a level with the umbilicus. Its surface appeared smooth, but resistant. There was slight ascites, and slight œdema of feet and legs. The patient was troubled with frequent cough and fairly copious watery expectoration. The urine (sp. gr. 1015) contained bile and a little albumen. What was most striking in the patient's appearance was the dusky and slightly jaundiced colour, the general tremors, and his great prostration.—May 10th: Pulse 100, and stronger; heart's sounds more distinct; urine of higher specific gravity (1022), still containing bile, but free from albumen.—12th: The patient had been wandering for the last two nights, and was extremely restless, requiring constant watching to keep him in bed. Temperature 102°.—13th: Patient weaker, constantly muttering to himself, and very restless; complained of nausea and dyspnœa. To-day were noticed for the first time twitchings of the face muscles, which recurred frequently, and during the evening and night (May 14th) he had three epileptiform fits, the arms being most affected. The fits were followed by deep sleep. The urine passed was small in quantity, sp. gr. 1028, but free from albumen.—15th: There had been no more fits, but the patient was more drowsy and feeble and the dyspnœa was much greater. Tongue dry, with sordes in mouth. Urine passed in bed. Pulse 130, very feeble; temperature 100°. Attacks of twitching in face were frequent, lasting about half a minute at a time.—16th: The dyspnœa was greater, and at midday the patient suddenly sat up in bed, became livid, struggled for breath, and died in about an hour's time, the final change being sudden. (See Chart.)

The post-mortem disclosed old adhesive pleurisy with emphysema and extreme congestion of lungs. The larynx was healthy. The pericardium was healthy, and contained but a very small amount of clear serous fluid. The heart was universally dilated; the valves healthy, but the muscular substance yellow and mottled with fatty change. It was easily torn and teased up, and showed under the microscope considerable fatty and granular disintegration of fibre. The coronary arteries were normal and there was no cause for the fatty change found in the heart. The abdomen contained a little fluid. The liver weighed 89 oz., and was markedly granular and firm. The spleen weighed 8 oz., and the kidneys 6 oz. each. These organs were much congested, but otherwise not abnormal. The brain and spinal cord were carefully examined, and no change discovered.

In brief, a young man, aged twenty-seven, addicted to drink, from the effects of which he had seriously suffered on many occasions, after more heavy indulgence than usual became weak and tremulous and suffered from attacks of cold perspirations and faintness, with epigastric pain, dyspnœa, and slight jaundice. On admission the patient was dusky and slightly jaundiced, with marked dyspnœa and




constant, though not severe, epigastric pain, a very rapid and feeble pulse, and considerable pulmonary congestion. The cardiac dulness was enlarged, the sounds rapid and very feeble, and accompanied by blowing systolic murmurs. Gradual increase took place in all the symptoms, but especially in the dyspnœa, and the patient died suddenly and somewhat unexpectedly.

All the clinical phenomena pointed to the heart as the source of trouble; and the post-mortem examination confirmed this view, for the only other organ diseased was the liver, while the heart itself was in a condition of extreme degeneration, though the pericardium, endocardium, and valves were unaffected.

Accepting the view taken during life, confirmed as it was by the necropsy, as correct—viz., that the case was one of acute muscular degeneration of the heart,—there remain for decision two questions: (1) The name by which it would be best described, and (2) the cause to which it may be attributed. It is impossible in most cases to draw the line sharply between inflammation and acute fatty degeneration, for, as we see in acute nephritis, fatty change follows so quickly upon inflammation as to form almost part of the process. We may, therefore, without refining too much, I think fairly apply the term myocarditis to the case, and, as the change was general and of short duration, we may add the terms diffuse and acute, and describe the disease as myocarditis acuta diffusa. The only ground for hesitation in thus naming the disease would be the stated rarity of the affection,

except when associated with and secondary to other changes in the heart, such as pericarditis or endocarditis, the absence of which in this case was proved by necropsy. The next question to be considered is the cause of the disease in the present instance. No local cause, in the first place, existed in the heart. Of the general causes to which myocarditis is often referred, there was no history or distinct evidence of rheumatic fever, and all the common forms of blood-poisoning were absent, and there was no evidence of any ordinary fever, such as typhoid, &c., or even pneumonia, nor of pyæmia or other septic fever. The only other diseased organ in the body was the liver, and although the disease of the heart may be connected with the disease of the liver in the sense that if the liver had been healthy the myocarditis might not have occurred, still the causal relation between the two affections is somewhat remote and impossible of proof, and we may be justified, therefore, in describing the present case as one of primary rather than secondary myocarditis. Every disease must have a cause, and I should be rather inclined to refer the heart affection in this patient to the toxic effect of the recent drinking bout, than to the chronic and probably not very advanced change in the liver. My own observation leads me to believe with Prof. Köster and Rühle that acute myocarditis is not by any means so rare a disease as is commonly stated, nor that it is always of short duration or necessarily fatal.

CASE 2. *Myocarditis; cirrhotic liver.*—This case, almost the exact counterpart of the preceding, is published by Leyden in the *Charité Annalen* for 1883. The patient was a male, aged thirty-four, who was admitted into the hospital on December 26th and died on January 16th (twenty-one days)—a drunken "ne'er-do-well," who had lived on his wits for the last six years, and had had syphilis two years before his present illness. He had been ailing for some years; he said he had been in his usual health until three weeks before admission; he then suffered from pain in the chest and oppression in breathing, and had been confined to bed. Twelve days previously his testicles had swollen. The present complaints were of great weakness and want of appetite, pains in the chest, and shortness of breath, so that he could hardly speak. The patient was of moderate size, poorly nourished, but not emaciated. The skin was slightly jaundiced and the trunk and back of the thighs covered with numerous petechiæ, and there was slight œdema of the legs and scrotum. The temperature was not raised. The respiration was rapid, shallow, and costo-abdominal. Pulse rapid, 128, irregular, and of small volume. There was a diffuse feeble impulse felt over the whole cardiac area, but the apex could only just be localised in the fifth space outside the nipple line, and could not be seen. The cardiac dulness was increased slightly upwards and towards the left, but did not extend beyond the usual position towards the right. The sounds were very feeble, but no murmur was present. The urine (sp. gr. 1007) contained no albumen and no bile; there was slight ascites. The diagnosis was made of dilatation of the left ventricle, without valve or kidney mischief, probably of syphilitic origin.

In the course of the next few days the patient improved, the petechiæ disappeared, the temperature continued normal, and the pulse was reduced to 80, though occasionally it rose to 113. The digitalis was stopped. On Jan. 2nd the pulse was again quicker (120) and more feeble; there was more jaundice, the hepatic region was somewhat tender, and the patient not so well. On the 8th there was slight wandering. Temperature 98·4°; pulse 90; specific gravity of urine 1030, no albumen; the patient weaker. The digitalis was again administered, and quickly reduced the pulse. On the 13th the pulse fell so low as 48, and on the 14th to 40; it was at the same time irregular and weak, so that the digitalis was stopped. On the 15th the patient complained of headache, and on the 16th he became suddenly faint and died in a few minutes.

The post-mortem examination showed slight œdema of the feet, legs, and scrotum, with a little ascites, but no fluid in the pericardium or pleural cavities. The pericardium was adherent over a small part of the right auricle, and thickened a little in patches over the front of the right ventricle. Elsewhere it was smooth, and there was no evidence of recent pericarditis anywhere. The valves and endocardium were healthy, but the muscular substance was spotted here and there with yellowish patches. The lungs were congested, but otherwise normal; the liver hob-nailed. On microscopical examination the muscular substance of the heart was found to be fatty, the change being most marked on the inner surface. Here and there were several small patches of old fibroid induration, and in two places the arteries corresponding with them were occluded by endo-arteritic change.

Professor Leydon discusses the question whether the dilatation to which the symptoms and death were due is to be referred to the old syphilitic change, or to more intense myocarditis in the earlier part of the present illness, or whether both the dilatation and fatty change are to be referred to the cachexia and consequent general malnutrition. He leaves these questions unanswered, but suggests that all these factors had their share in producing the condition. The dilatation he diagnosed from the position of the apex beat with the alteration in the cardiac dulness and the weak heart from the feeble heart sounds and small pulse. He draws attention to the fact (1) that the patient's complaint did not point very directly to the heart, and that he suffered from discomforts rather than actual pain in the cardiac region, and from oppression of breathing rather than dyspnœa; (2) that the pulse was so small and irregular, and varied much in form and frequency, and was especially subject to the influence of digitalis; (3) to the dropsy without reduction in the amount of urine; and (4) to the sudden syncope which ended in death.

It would be difficult to find two cases of an obscure and not very common disease which resemble one another more closely in all respects. In one important point only do they differ—namely, in the temperature; for in my case the temperature was slightly raised, and in Professor Leyden's was normal. Both patients were young men, and complained of similar symptoms; both had jaundice, slight ascites, and œdema, both had the evidence of weak dilated heart, both died suddenly, and in both were found a fatty heart and cirrhotic liver; in both the diagnosis was made during life, and confirmed after death.

Although of the six cases which follow three died, in two only of these was the diagnosis established by post-mortem examination, and I have therefore thought it well to take the two cases just described first, as establishing a firm pathological basis upon which the other cases may stand. In connexion with them I may place next another completed case which I quote from a paper written by me in the St. Bartholomew's Hospital reports for 1878, for the use of which I was indebted to the kindness of Dr. Bristowe.

*(To be continued.)*

## A NOTE ON MALARIAL ICTERUS AND HÆMOGLOBINURIA.

BY C. H. EYLES, L.R.C.P. & S.EDIN.,
ASSISTANT-SURGEON, GOLD COAST COLONY.

AFANASSIEW,[1] in endeavouring to account for the variable and disproportionate icterus accompanying hæmoglobinuria, finds, among other things, that, for the production of hæmoglobinuria, solution of the hæmoglobin into the blood-spasm is a necessary and invariable antecedent, though the latter condition may exist without necessarily producing the former. When icterus and hæmoglobinuria co-existed, the animals experimented on "bore it badly," the urine responded to Gmelin's test, and the kidney showed casts of bile-pigment and hæmoglobin. So far as the liver was concerned, in the cases where hæmoglobinuria alone was produced, histological changes in that organ were observed; while, when icterus likewise was present, these changes were more or less pronounced, and the bile in the gall-bladder and bile-ducts was found to be of increased consistence. The form of icterus which he proposes as explaining the phenomena is one he terms "hæmo-hepatogenous" icterus—i.e., it is a hepatogenous icterus determined by pre-existing hæmic changes, in so far that these bring about an increased formation of biliary constituents which are subsequently absorbed. Applying these facts to clinical observations, we find that while this "hæmo-hepatogenous" icterus may account wholly or partially for the discolouration of the skin in some cases, it cannot be said to cover another series of cases in which,

[1] Virchow's Archiv, vol. xcviii., p. 469, *et seq.*

together with icterus, there is no response to Gmelin's test in the urine, as in malarial fevers, &c.

On the west coast of Africa, where malarial fevers, from the mildest to the most malignant, are met with, one form of remittent occurs in which hæmoglobinuria is so prominent a symptom that it furnishes the popular name "Blackwater fever." In these cases there is acute hepatic tenderness, with enlargement, accompanied by hypercholia, as evidenced by the stools and the vomit, which, when other than ingesta, is a tenacious, viscid, golden-yellow fluid when the stomach is very irritable, and a copious green liquid when the stomach permits of accumulation; there is more or less profound icterus, and a tendency to suppression of urine, which in three fatal cases was icteric as well as hæmoglobinous. In these three cases the clinical phenomena—i.e., the icteric and hæmoglobinous urine, hepatic complication, and character of the vomit—lend countenance to the adoption of "hæmo-hepatogenous" icterus as an explanation of the discolouration of the skin. But what of the other cases in which the urine was non-icteric? It might fairly be urged that the hepatic symptoms were the result of the over-action to which the liver was urged by the condition of hæmoglobinæmia; and the appearance of profound icterus, without corresponding response by the urine to Gmelin's test, shows that, though the conditions necessary for the production of hæmo-hepatogenous icterus may exist, the discolouration of the skin may not be due to it in the first instance, though in some cases it might be partially accounted for thus.

Are we, then, to adhere still to a "hæmatogenous" icterus, meaning by that term a jaundice produced by chemical changes occurring in the blood itself, by which its colouring matter is converted into material capable of imparting a yellow appearance to the skin and conjunctivæ? As a reply to this, we find that "the formation of pigment in blood which is actually circulating is not carried beyond the first stage (the breaking up of red corpuscles) within the vessels; the completion of the process is effected outside the vessels."[2] Hepatogenous icterus being, then, inadmissible on the clinical evidence, pigmentary material not being formed in the blood as such, can it be that, the first stage of the process—the liberation of the hæmoglobin—being already accomplished in cases of hæmoglobinuria, the pigment formation is completed outside the vessels—i.e., in the tissues themselves? in other words, that the icterus arises in the same manner as the discolourations following extravasation of blood, the difference being that in the former case it is general and rapid, owing to the transudation of serum holding hæmoglobin in solution, while in the latter it is limited and tardy in appearance, owing to the fact that the extravasations are limited, and the corpuscles have first to be destroyed before the connective tissue corpuscles can act on the hæmoglobin? This seems probable. "It may even be" says Quincke,[3] "that under certain circumstances icteric pigment may not only be formed in tissues other than the liver, but may be formed so extensively and under such conditions that general icteric discolouration results; the formation of this pigment in the connective tissue, after extravasations, for example, permits us to speak of an *inogenous icterus* as possible; this would be a special form of an hepatogenous icterus; another special form would be the hematogenous—if it were known.

If this be accepted as the explanation of icterus accompanying hæmoglobinuria, and the malarial fevers in which this latter occurs, can it account for the icterus of malarial fevers, at least, in general? that is, are we to assume that because icterus occurs in these fevers, it is preceded by hæmoglobinuria? Recent research, I believe, spares us the trouble of assuming. Remarking on the observations of Laveran and Richard on the microbe of paludism, recently confirmed and extended by Marchiafava and Celli,[4] THE LANCET[5] says: "The organism has a special habitat, the red corpuscle of the blood, in which it develops, and which it leaves when it has arrived at a perfect stage of development. During the attack of fever many globules are seen which possess a small, perfectly round spot, but they have otherwise the normal appearance, and possess normal elasticity. In other corpuscles the evolution of the parasite is further advanced, the clear spot is enlarged and is encircled by small black granules, while around it the hæmoglobin, recognisable by its greenish-yellow tint, forms a ring, which becomes narrower and narrower as the parasite increases in size. Ultimately the substance of the corpuscle is reduced to a narrow decolourised zone, from which the hæmoglobin has disappeared"; and this disappearance of the hæmoglobin from the corpuscle and its consequent passage into the plasma supplies the requirement of hæmoglobinæmia necessary for the production of general inogenous icterus. Another matter is not uninteresting in this connexion—viz., that urobilin occurs in the urine in fevers generally,[6] and in cases where there has been extravasation of blood.[7] In continuation of the remarks above quoted, THE LANCET says: "Many other phenomena of the disease—the remarkable anæmia, the action of quinine, and the persistence of the infection—are all perfectly explained by these facts"; and among these phenomena, icterus, hæmoglobinuria, and congestion of the liver and spleen, seem to claim a place as being produced by the hæmoglobinæmia resulting from the presence of the parasite.

It might be asked if we are to consider the presence of hæmoglobinuria a sure and certain sign of the intensity of malarial poisoning. Thus, it might be said, when the poisoning is but mild, as in intermittent fever, the amount of hæmoglobin set free is such as can be dealt with by the liver, spleen, and bone-marrow; when more severe the additional hæmoglobin is employed in the production of inogenous icterus, as in remittents; the appearance of hæmoglobin in the urine, indicating a still further amount set free, shows intensity of the poisoning; while the addition of hæmo-hepatogenous icterus indicates a very high degree of intensity. Here, however, we are checked in arriving at any such conclusions, for the urine may be hæmoglobinous even in cases of mild remittents without any icterus, as I have seen, or it may be so in intermittents; and in Europe an apyrexial manifestation of malaria is met with in paroxysmal hæmoglobinuria, in which there might be no icterus whatever; or it may be present out of all proportion to the hæmoglobinuria. Why this should be we know not; and even in experimental pathology we find that under conditions apparently the same, in the one instance hæmoglobinuria alone is produced, while in another the urine is first icteric and subsequently hæmoglobinous.[8] To say that this is due to the varying capacity for work of the organs and tissues in different individuals is to offer no explanation, for yet the question would remain to be answered, Whence the varying capacity? That there is some difference even the old woman who prefers her family doctor because "he knows her constitution" is aware: but the family doctor deludes himself when he believes he explains the matter by veiling his ignorance behind the six-syllabled word "idiosyncrasy."

Gold Coast Colony.

[2] Ziegler's Pathol. Anat. (Macalister's translation), part i., p. 101.
[3] Virchow's Archiv, vol. xcv., p. 135, *et seq.* To avoid seeming confusion in terms, I translate as "icteric pigment" the word "Gallenfarbstoff," which, as will be observed, includes hæmatoidin as well as the true bile-pigments in the passage above quoted.
[4] THE LANCET, Aug. 15th, 1885. [5] June 17th, 1882.
[6] Landois' Text-book of Physiology, Stirling's translation, p. 542.
[7] Ziegler, op. cit., part ii., p. 31.
[8] Afanassiew, op. cit., experiments 4 and 5.

# A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

**Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.**—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

## ST. MARY'S HOSPITAL.

### A CASE OF CONTRACTED GRANULAR KIDNEY; DEATH; NECROPSY.

(Under the care of Dr. SIEVEKING.)

THE following case is a very instructive one. A female, aged thirty, had a convulsive seizure without apparently any previous symptom of importance, and died within three weeks afterwards from uræmia, the result of pronounced renal disease. Contracted granular kidney is not common at this age, and the disease was far advanced when the patient came under treatment. The urine was greatly diminished in quantity, there was slight general anasarca, considerable

arterial tension, and much cardiac hypertrophy. Headache, nausea, vomiting, convulsive seizures, and other symptoms of uræmia rapidly came on, and the patient died comatose a fortnight after admission. The kidneys were extensively diseased, and together weighed only an ounce and a half. The notes of the case have been furnished by Mr. Geo. Spear.

Lydia P——, aged thirty, an anæmic, weakly-looking woman, was admitted to this hospital on Nov. 10th, 1884. The patient had a fit ten days previously; while talking to her mother and sister she suddenly fell, striking her head against the fender. She remained unconscious for "several hours," and during the fit had bitten her tongue. She has been in a very weak state ever since, becoming faint and giddy, and trembling on the least exertion. Her previous history showed that she had been subject to cough and cold every winter for several years, and generally had to get medical advice for it. She suffers from rheumatic pains in the joints, but has never had rheumatic fever. The patient has noticed that her face and the lower extremities have swollen occasionally for some time past. Does not think she has passed more urine than usual lately. She has frequently had pain under the left breast, with shortness of breath on walking quickly or going up-stairs. Patient gave birth to a child seven years ago. The catamenial flow has been regular until four months ago—absent since then. The family history showed that patient's father died of "chest disease and rheumatism" at the age of fifty. The mother was living, but in delicate health; she suffers from some chest affection and is nearly blind. There have been eight brothers and sisters. One sister died of consumption at the age of eleven years; the rest are living. One brother suffers from rheumatic gout, and another was troubled with fits during childhood. Some relatives of her father have died of consumption.

On admission, there was slight puffiness of the face with patches of ecchymosis, and a nearly healed scar over the outer angle of the left orbit. Skin warm, slightly moist; tongue coated with white slime, and a dark streak down the centre; temperature normal. Chest fairly well arched; impaired resonance over both fronts; respiratory murmur fair. At the back of the thorax slight dulness, with increased vocal resonance at both bases and at lower angle of left scapula. Cardiac dulness greatly extended. The heart's impulse was very forcible at the lower part of the fifth space; a systolic thrill was felt at the apex; there was a loud mitral systolic murmur at the apex propagated towards the axilla; an aortic systolic murmur was heard at the base, and a little above and below in the sternal line. Liver full size; dulness begins at the fifth rib. Spleen enlarged. Urine very pale; sp. gr. 1011; neutral reaction; albumen present, equal to one-tenth. The patient was ordered five-grain doses of citrate of iron and quinine in an ounce of peppermint-water three times daily, and an ounce and a half of compound decoction of aloes every other morning.

Nov. 13th.—Patient has had a sharp pain under the left breast during the night. The aortic and mitral systolic murmurs are louder and rougher; there is also a pulmonary murmur, persistent on increasing pulmonary tension. Pulse 90, hard, cordy, incompressible; temperature 97°; some nausea; urine pale, sp. gr. 1013, faintly acid, slightly albuminous.

15th.—Face slightly puffed. Patient was sick yesterday, and complains still of nausea and almost constant headache. Feels giddy at times. Pulse 96, regular; temperature 96·2°; last evening normal. A blister ordered to be applied to back of neck.

17th.—Patient complains of pain over the region of the kidneys. Face more puffed to-day. Pulse 104, hard, cordy. Both murmurs very marked; second sound reduplicated. Patient was slightly sick this morning. Ordered thirty grains of compound jalap powder every morning.

18th.—Patient had a fit last night and again early this morning; each attack lasted from four to five minutes. There was no cry. The fit began with clonic spasms, affecting both arms and legs and the muscles of the face and body. In the first attack the patient bit her tongue. The bowels being constipated, a simple enema was administered; later a three-ounce dose of black draught was given, which caused four loose stools. An injection of pilocarpine (one-tenth of a grain) was given hypodermically; this caused free but not excessive perspiration for about an hour. In the evening a vapour bath was given. The pulmonary and mitral murmurs are more marked. About eighteen ounces of faintly acid urine passed in twenty-four hours (bowels relaxed four times); sp. gr. 1013; one-tenth albumen. Nausea continues. Tongue coated. To take twenty minims of spirit of nitrous ether and ten minims of tincture of digitalis, in one ounce of water, three times a day.

19th.—Patient has had a good night, but complains of headache this morning. Tongue moist at the edges, covered with white slime, and having a dry brown streak down the centre. Pulse 96, hard, cordy, regular. Temperature 97·3°; last evening 99·1°.

20th.—Patient had four fits last night between 6.30 and 12. After the last attack she was partly unconscious for three-quarters of an hour, the hands twitching convulsively. She was unable to articulate; the left eye was directed inwards. A dose of bromide and chloral mixture was given, but she vomited it almost directly; a second dose at 4 A.M. was retained. The injection of pilocarpine was administered daily and the vapour baths were continued, but only moderate action of the skin was induced. Bowels open three times yesterday. The aortic and mitral systolic murmurs continue about the same. The heart's impulse is in the sixth space, forcible and heaving in character, but does not convey the impression of the same vigour as when patient was admitted. The face is much puffed; the right eyelids discoloured and erysipelatous. Pulse 96, regular, incompressible. Urine very pale; sp. gr. 1011; one-fourth albumen; deposits granular and epithelial casts. There is pulsation in the jugular veins and a loud venous hum, both stopped by making pressure below.

21st.—Patient had two fits last night, both lasting longer than the previous ones. The convulsive movements began in an attack on the right side of the face, then went to the right arm, then to the left arm and leg, and finally back to the right side again. After these attacks patient remains unconscious for half an hour or longer. Urine is generally passed during the fits; during the last fit both urine and fæces were voided. Patient is unable to answer questions to-day, and at times is in quite a frenzied condition for a moment or two. There is increased fulness and pulsation in the external jugulars. The heart could not be examined. Pulse 102, hard, cordy. Bowels open five times. Temperature 96·4°; last evening 99·4°. There has been slight epistaxis upon two occasions. Patient remained in a comatose condition the greater part of the day; she stares vacantly at anyone who goes near, and if she makes any answer to questions, it is always, "I don't know." Strong coffee was ordered three times a day. Four leeches to be applied behind the ears.

22nd.—Still unconscious, but there has been no return of the fits. The tip of the tongue, the teeth, and lips are covered with sordes. She refuses everything brought to her, so that only one cup of the strong coffee could be given. Pulse 104, regular, softer. Temperature 97·2°; last evening, 96·4°. Some urine was voided in the bed this morning; none passed during the night. A nutrient enema, consisting of half an ounce of brandy, an ounce and a half of beef jelly, and half an ounce of strong coffee, to be given every four hours.

24th.—Patient has not recovered consciousness. Little or nothing has been swallowed; the nutrient enemata have been retained. Respiration is deep, the intercostals and scaleni acting visibly at each inspiration. The bowels have been opened after two enemata of castor oil. A little urine has been passed in the bed. A hot pack was used last night and there seemed to be a momentary return of consciousness. The pilocarpine has now little or no action upon the skin. Pulse 100, full, jerky; temperature 99°; last evening 98°. Patient is much emaciated.

25th.—Patient is evidently sinking. Pulse 100, regular; temperature 99°. The nutrient enemata are generally retained; no liquid or food given by the mouth is swallowed. Fæces and urine are passed involuntarily. Conjunctiva sensitive. A hot pack was used last night, but caused no sweating. The respirations gradually became deeper, slower, and catchy, and the patient died at 1.20 P.M.

A post-mortem examination was made twenty-five hours after death. Rigor mortis was well marked; body much emaciated. The heart was hypertrophied, particularly the left ventricle; substance pale; aortic valves slightly thickened. Congestion and œdema of both lungs, especially the lower lobe of the right. The kidneys were extremely small: weight of left, one ounce; right, half an ounce.

Substance red and very granular; the cortical portion almost gone; only about one-sixteenth of an inch in thickness. A little fat was deposited from degeneration. Liver congested. Brain substance normal; slight effusion in the cerebral ventricles. A section of the kidney examined microscopically showed the organ to be so fibrosed as to be almost unrecognisable; every grade of fibroid degeneration was seen, from the crowd of indifferent cells between the tubules, to the masses of dense, almost homogeneous, fibrous tissue. The vessels were enormously thickened, and their nuclei increased. The glomeruli were much altered: the best of them were much over-nucleated; the worst were simply homogeneous fibroid masses. The capsules were much thickened. Considerable congestion of the organ was evident, apparently from the supervention of an attack of acute inflammation at the end of chronic nephritis. Not a single normal tube was to be seen; some were lined by degenerated cells, others by embryonic cells; some were reduced to fibrous bands, while others, again, were mere chains of cysts.

## KASHMIR MISSION HOSPITAL.

### ABSCESS OF KIDNEY COMMUNICATING WITH BOWEL; OPERATION; NECROPSY; REMARKS.

(Under the care of Mr. A. NEVE.)

THE following may well be classed among the cases of difficult diagnosis lately published by Dr. Fenwick. It is one which a more careful examination might have helped to elucidate. But in Kashmir the endeavour to obtain reliable accounts from the patients or intelligent notes from any hospital assistant is nearly hopeless.

A man, aged about forty, was admitted on Oct. 6th, 1884. He was spare, with a careworn expression, complaining of constipation for twelve days and of a painful lump in the left side. It was diagnosed as obstruction of the descending colon, and treatment by enemata was ordered. One or two thin motions followed, but the swelling remained with increasing fever and loss of appetite, but no vomiting. Mr. Neve's attention was not called to him till the fourth day after admission. He then found a considerable swelling of the left abdomen, between the ribs and the spine of the ilium. Fluctuation was perceptible, but the tumour was partly tympanitic. It was not very tender to the touch, and there was some gurgling on pressure. The puzzling point was the connexion between the swelling and the severe constipation. Another enema was ordered, which, however, was fruitless. Next day (Oct. 11th) a large enema was given, the body being inverted. The fluid seemed slowly to percolate through the whole length of the large intestine. Evidently the tumour was separate from the bowel. It was aspirated, and some very offensive fæcal fluid escaped, but the needle was blocked by small sloughy fragments. The enema returned, bringing away a large quantity of fæces.

*Operation.*—A few hours later, under the spray, an incision was carefully made into the tumour. A large quantity of most offensive liquid, of brownish colour and fæcal smell, escaped: also some flocculent matter and sloughs, one piece, six inches long, being a fragment of the intestinal mucous membrane. The finger entered a large cavity, crossed by numerous soft rotten bands. It appeared shut off from the rest of the abdominal cavity by firm adhesions. Above it entered a round movable aperture like an anus. In the position of the kidney was an ill-defined soft pulpy mass. The wound was well washed out, and a large drainage-tube applied, over which a sawdust pad was fixed. At the close of the operation the true nature of the case was still doubtful.

Next day (Oct. 12th) the temperature had fallen from 102·5° to 99°. There had been one or two motions. Urine normal in appearance. Pain slight. Pulse very weak. Wound dressed and washed out.

13th.—He was much weaker. About midday he had a rigor and became pulseless and insensible. Sixteen ounces of saline fluid were injected into a vein, with some marked improvement for a few hours. At night he died.

*Necropsy.*—Lungs much congested. In the right pleura there were twelve ounces of serous fluid. Liver congested and rather rotten in texture. Spleen enlarged. In the right kidney there was a small encysted stone (weight 2 dr.). The descending colon was found to be much displaced towards the middle line, and to pass through a mass of inflammatory adhesions which formed the inner wall of the abscess cavity, with which the colon communicated by a small aperture. This cavity extended from the diaphragm to the iliac fossa. It was lined with a greenish gangrenous material. In the floor of it, amidst much sloughy material, were the remains of the kidney, the anterior wall of the pelvis being absent, revealing large cavities in the substance. The psoas muscle contained several ounces of pus.

*Remarks by* Mr. NEVE.—Throughout this case my diagnosis was in error. I had considered the possibility of hydronephrosis &c., but all the symptoms pointed towards the bowel. There was prolonged constipation; much thickening around the colon; a tympanitic tumour containing gas and fæcal fluid; also sloughs. I diagnosed a fæcal abscess, connected in some way with obstruction of the bowels, some portion of the wall of which had, I thought, sloughed, but had been repaired by adhesions. By the light of the post-mortem and the stone in the right kidney, I believe the starting-point to have been a hydronephrosis, due to blocking of the ureter; this was followed by rupture of the wall, perinephritis, communication with bowel, fæcal contamination and decomposition, obstruction, &c.; making a most puzzling combination of signs. If the man had come earlier he would probably have recovered. Immediate benefit followed the treatment, which was perhaps the best that could have been adopted, but it came too late.

# Medical Societies.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

*Mortality in the Medical Profession.—Tapetum Lucidum.*

AN ordinary meeting of this Society took place on Tuesday last, Dr. George Johnson, F.R.S., President, in the chair. The papers were both of peculiar interest, and the meeting was prolonged for half an hour.

DR. WILLIAM OGLE, the successor of Dr. William Farr as Superintendent of the Statistical Department at the Registrar-General's Office, read a paper on Mortality in the Medical Profession. The paper, of which the following is a detailed abstract, has not only special interest for the medical profession, but is also, from a statistical point of view, a valuable contribution to statistics of class mortality, a subject upon which our information is at present mainly dependent upon figures derived from facts deficient in number and often not beyond all suspicion of inaccuracy. The basis of facts on which Dr. Ogle's conclusions are based is wide enough to inspire confidence, and the source of his information is above suspicion. At the last census in 1881 the number of "physicians, surgeons, and general practitioners" enumerated in England and Wales was 15,091, and after the census was over the causes of the deaths of all males aged fifteen years and upwards in England and Wales during the three years 1880, 1881, and 1882 were abstracted from the National Death Register, in combination with the occupations of the deceased persons. The result of this process, as regards the mortality of medical men, was to show that their mean annual death-rate in those three years was 7·40 per 1000 between twenty and twenty-five years of age, 11·57 between twenty-five and forty-five, 28·03 between forty-five and sixty-five, and 102·85 per 1000 at sixty-five years and upwards. Among all medical men aged upwards of twenty years, the mean annual death-rate was 25·53 per 1000. The first question suggested by these figures is whether the death-rate is high or low, and this inquiry naturally divides itself into two other questions. In the first place, is this death-rate of medical men in the three years 1880-1-2 higher than that of medical men in former times? and secondly, is it high compared with the death-rates of men engaged in other occupations? For an answer to the first of these questions, Dr. Ogle refers to the calculations of his predecessor, Dr. Farr, based upon similar investigations in 1860-1 and 1871, from which it appears that the annual death-rate of medical men aged upwards

of twenty years was 23·60 in 1860-1, and rose to 24·98 in 1871, whereas it had further increased to 25·49 in 1880-1-2. These death-rates are all corrected for differences in the age-distribution of the profession at the successive periods, each of the rates being calculated on 1000 medical men having the same age-distribution as existed in 1881. The fact of the progressive increase in the mortality of the medical profession between 1861 and 1881 is therefore established. It is to be noted, however, that the increase in 1880-1-2, compared with the earlier periods, is practically confined to the later periods of life, while among medical men under forty-five years of age the rates had generally declined. The increase at all ages is due to the increase at the later ages being greater than the decline at the earlier ages. Dr. Ogle points out that these features of the mortality statistics, the decrease at the earlier and the increase at the later ages, are not peculiar to the medical profession, being common to most of the other professions and industries. These features are discussed at some length in Dr. Ogle's report to the Registrar-General on the mortality of the country in the decennium 1871-80. Contrary, however, to the case of the medical profession, "the lives saved at the earlier ages were in excess of the lives lost at the later ages" in most other occupations, and among the male population generally, independently of occupation. In part explanation of this increase of mortality among the male population of England at the later ages coincidently with a decrease of mortality in the earlier stages of life, it is urged that it is due to the "increased wear and tear of adult life, brought about by the growth of population, and by the keener struggle and competition which this growth necessarily brings with it." In the second place, it is suggested that a certain "number of comparatively weak lives, which in pre-sanitary times would have perished in infancy or childhood, have been preserved, and by their survival may have diminished the average vitality of the population at more advanced ages." Dr. Ogle then passes on to compare the mortality of medical men in 1880-1-2 with that of men engaged in other occupations, and gives a table showing the annual death-rates in those three years in a number of different professions and trades. Each of the rates is calculated for 1000 males, aged upwards of twenty years, with the same age-distribution as the medical profession. The death-rate of medical men is shown to be far in excess of that in other professions. Thus the death-rate is 15·93 in the clerical profession, 20·23 in the legal profession, and 19·90 in the scholastic profession, while in the medical profession it is, as has been stated, 25·53. The rate in the medical profession is not only higher than in any of the other learned professions, but also compares unfavourably with the rates in most other trades and industries, and is indeed "only exceeded by the rates in certain trades and occupations that are notoriously unhealthy." Having established beyond doubt the fact of the marked excess in the mortality of the medical profession, Dr. Ogle proceeds to consider what are the causes to which this excess is attributed, or rather what are the diseases under which it occurs. This information has been derived from copies of the entries in the Death Register relating to the deaths of 3865 medical men during the years 1873-82, forwarded to the General Medical Council in accordance with legislative enactment for the due correction of the Medical Register. Dr. Ogle's information based upon these facts is, as he asserts, unique in character. No similar information unfortunately exists for any other profession or industry. The number of deaths dealt with is fairly large. The deaths were spread over a period of ten years, and they occurred in all parts of the country; they may therefore with full confidence be accepted as a fair sample of the causes of death of medical men. The 25,535 deaths estimated to occur annually among 1,000,000 medical men are therefore assumed to be caused by the various diseases in the proportion shown by the classification of the causes of the 3865 deaths. The result of this distribution gives the annual death-rate per 1,000,000 medical men from each cause of death dealt with. A table is appended giving, side by side with these death-rates from the several causes among medical men, the rates from the same causes among all males in England and Wales, irrespectively of occupation, and duly corrected for differences of age-distribution. The result of this comparison is to show that, with very few exceptions, the mortality of medical men is higher from every disease or group of diseases than is the mortality of males generally. Under some of the headings the "medical mortality is twice, or thrice, or even more times greater than the average." The table gives the comparison for twenty-six headings, in only five of which is the medical death-rate lower than that for all males. It is pointed out, moreover, that only three of these five headings, under which the advantage is on the side of medical men, are of any numerical importance—namely, phthisis, diseases of the respiratory organs, and accident; and, as regards accident, the rate among medical men is really excessive if compared with that among other males, if a small number of highly dangerous occupations, such as mining, quarrying, and sea-fishing, be included. There remain, therefore, only two headings under which the medical mortality is markedly below the general average—namely, diseases of the respiratory organs and phthisis; the medical mortality from diseases of the respiratory organs was 27 per cent., and that of phthisis no less than 45 per cent. below the average for all males. These causes of death are most fatal among those classes of the population liable to destitution, and it is therefore possible that mortality statistics for other sections of the middle or professional classes would show death-rates from phthisis and diseases of the respiratory organs as low as those prevailing among the medical profession. One of the most interesting features in the comparison between the rates of mortality from various diseases in the medical profession and among all males is the contrast presented by small-pox and other zymotic diseases. The annual death-rate from small-pox among all males aged upwards of twenty years is 73 per 1,000,000, whereas in the medical profession it is only 13, showing that although the profession is of course very much more exposed to the risk of infection than any other class of male adults, their mortality is scarcely more than a sixth of the average. The only possible explanation of the fact appears to be the great probability that medical men are more generally and better vaccinated than the rest of the male population. In the case, however, of other infectious diseases "against which no similar prophylactic remedy is known, the comparison gives a very different result. The mortality of medical men from scarlet fever, typhus, diphtheria, enteric fever, malarial fever, and erysipelas is very largely in excess of the average. The excess of mortality from remittent and intermittent fever is attributed to the large proportion of the profession who have served abroad in the army or the navy, or who have practised in India or the colonies. The death-rate from scarlet fever in the medical profession is 59 against an average of 16; from diphtheria, 59 against 14; from enteric fever, 311 against 238; and from erysipelas, 172 against 136. The marked excess in the death-rate from liver diseases, which is 1744 in the medical profession against an average of 744, may, it is suggested, be partly due to the same cause to which is attributed the greater fatality of malarial diseases. It is pointed out, however, that the death-rate from gout is 291 against an average of 78; from diseases of the bladder and prostate, 634 against 287; from other diseases of the urinary system, 1520 against 665; from diabetes, 284 against 108; and from alcoholism, 178 against 130. With regard to these figures Dr. Ogle says: "It becomes difficult to resist the conclusion that the main part of the enormous mortality from hepatic diseases is due, despite the indignant protest of Professor Casper to the contrary, to the neglect by medical men, as a body, of those wise rules of diet which they lay down for the guidance of their patients." The excess of mortality from liver diseases in the medical profession is 134 per cent., and from urinary diseases 128 per cent.; while, on the other hand, the excess from diseases of the organs of circulation is only 41 per cent., and from diseases of the nervous system only 7 per cent. above the rate among the general population. The excess in the death-rates from diabetes and malignant diseases is attributed to the probability that the diseases to which medical men succumb are more correctly diagnosed and more carefully stated in the death certificates. With regard to the death-rate among medical men from accident, it appears certain that if this could be compared with the rate from the same causes among men engaged in other professions and belonging to the middle-class, the accident-rate in the medical profession would show a considerable excess, whereas it is below the average for all males, including those engaged in mining, quarrying, and sea-fishing. The death-rate from suicide is 363 per 1,000,000 among medical men, against an average of 238 for all males; and it is further pointed out that

the tendency to suicide is increasing in the medical profession, whereas no corresponding increase is shown in the figures for the general male population. In order to facilitate a comparison between the death-rates from suicide in the three principal professions—legal, clerical, and medical—the annual rates were specially calculated for the six years 1878-83; they are given as 128 for the clerical, 354 for the legal, and 464 for the medical professions. The numbers upon which these rates were calculated are comparatively small, but it is urged that the rates, at any rate, conclusively prove that suicide is far more common among the medical than among either of the two other professions. The suicide figures show that medical men, as regards the methods of self-destruction, show a notably preferential choice for poison. In 26 of the 55 cases of suicide among the 3865 deaths of medical men, taken as a sample of the causes of death in the profession, or 47 per cent., death was effected by poison, and it is further noticed that in no less than 14 of these cases of poison prussic acid was the selected agent. In conclusion, it is remarked that the statistics given in the paper prove the fallacy of the ancient belief that "the life of a medical man is, as a rule, longer and healthier than that of other men"; but while the "results of this pitiless test of statistical inquiry are utterly incompatible with that ancient and optimistic view, it is at any rate not unsatisfactory to note that they offer on the whole a much less gloomy view of the condition of the profession than the figures given by former inquirers, such as Prof. Casper and Dr. Escherich."

—Dr. GEORGE JOHNSON said the comparatively few numbers of deaths from small-pox in medical men was a favourable item. Deaths from other infectious diseases were numerous, and this was what one might have expected from the great exposure of medical men to such affections. The reason why the mortality was so high from enteric fever was a question of much importance, and could not be explained on the assumption that the houses of medical men were not in as good a sanitary condition as the generality of people. He thought that the attendance on the poor at their own homes, where medical men had to enter the worst dwellings in London, was the chief way in which they contracted this disease, which would, he thought, be found to fall chiefly on that class of medical men who attended the poor. The great exposure to cold of many country practitioners would probably be one reason for the frequency of urinary diseases, and not alcoholism.—Mr. NOEL HUMPHREYS ventured to offer some remarks on the purely statistical part of the paper. It had been most conclusively shown that the death-rate was much in excess of males generally and of other professions, and also that it was increasing. With regard to the causes of death, he considered that Dr. Ogle's paper made a comparison between medical men and the working classes, which composed the majority of the male population, and this fact prevented the comparison having full weight. The comparison should be made with other members of the middle class. As to phthisis, it had been shown that the mortality was below the general average, but the general male population were more exposed to the weather and to the hardships of poverty than, as a rule, medical men were. He considered that this immunity was due to a class difference, and not peculiar to medical men, but enjoyed by other members of the upper and middle classes. The extent of respiratory diseases bore a direct proportion to the degree of poverty. The greater frequency of liver and digestive diseases was probably to be attributed to the excessive eating and drinking, as well as to want of exercise, and this was probably also a class difference. He regarded Dr. Ogle's paper as a most valuable contribution, especially to class mortality statistics. In the existence of the Medical Register he considered that there were unusual opportunities for constructing a real life-table of medical men.—Mr. NEWBATT, the well-known actuary, criticised Dr. Ogle's paper from the statistical point of view, and doubted whether its results completely disposed of the difficulty. The numbers, he pointed out, were comparatively small, and therefore liable to errors; 15,000 was not a large number to work with, and when these became distributed the results would be still less reliable in each of the sections. They would be required to be received with some little caution. A very slight difference in the mode of grouping would cause a remarkable difference in results; an incorrectness in the statement of the age, even, would make a difference when small numbers were dealt with; these peculiarities were well recognised by students of vital statistics. He was rather startled to hear that the death-rate in the medical profession was excessive, for he believed that most statisticians had arrived at a different conclusion. Dr. Guy, forty years ago, read a series of papers on Longevity in the Learned Professions, and showed that there was little difference between the professions, though even then there was a slight difference in favour of medical men and of the clergy as compared with lawyers. True, these statistics were based on unscientific methods, but as such they were of equal value with Caspar's; yet, as a matter of comparison between the professions themselves, they were of some value. Dr. Ogle's statistics were scientific and original, and could not be compared with data from other professions, because such data did not at present exist.—Dr. C. H. F. ROUTH joined in the discussion.—Dr. J. G. GLOVER doubted whether thirteen deaths from small-pox was a credit to the profession; he considered that there ought to be none, seeing that nurses and attendants on cases of small-pox could protect themselves absolutely from the disease by effective revaccination. Dr. Ogle's statistics showed that the annual death-rate of the profession in England and Wales was about 386 a year, and even doubling this number so as to include Scotland and Ireland, we then had 772 as the waste of the profession; this number, he pointed out, was greatly in contrast with the 1600 given as the annual loss to the profession by Dr. Lyon Playfair. If Dr. Ogle's statistics included deaths of unqualified and unregistered practitioners, that might prove a source of error. The night-work, the irregularity of habits, the wear and tear of medical life, and the want of care that medical men took of their own health, would probably explain partly the excessive mortality.—Dr. C. T. WILLIAMS was surprised that respiratory diseases should prove so comparatively rarely fatal to medical men, seeing the amount of exposure to weather that they experienced. He argued that, as medical men were able to ward off death from respiratory diseases, there was hope that they could do something to reduce their mortality from hepatic and digestive diseases. Could Dr. Ogle give any information as to the relative value of a medical man's life according as he was resident in town or country? The public ought to know of the excessive mortality of their medical attendants, and would probably sympathise with the hardships of their lives; but insurance offices, on learning the information, might be inclined to "rate up" the lives of medical men.—Dr. DOUGLAS POWELL said that Dr. Guy's results were appended in a foot-note to Dr. Ogle's paper.—Dr. OGLE, in reply, said that no doubt the comparison between medical men and the general male population was a faulty one in some respects, but it was the only comparison available. We had at present no means of obtaining the mortality of other learned professions. In reply to Mr. Newbatt, he admitted that he had dealt with a small population, but that could not be helped. He said, however, that the number dealt with for three years would really mean three times 15,000. Still, additional credit might be given to his results, since they coincided with the figures of the census of 1861 and 1871, and so had the additional support of similar results. The only authorities that he had quoted, Caspar and Escherich, gave an even higher mortality than he had obtained. The number of unregistered practitioners included in his statistics would certainly be small, even if there were any, and he did not think that this item could lead to any flaw of appreciable dimensions. He did not enter into the reasons for the deaths from different causes, but simply stated them, and he had no information which would enable him to give an answer to the question put by Dr. Williams.

Mr. HENRY LEE read a paper on the Tapetum Lucidum. The object of the paper was to show that the rays of light from different points which pass through the pupil and impinge upon the tapetum lucidum are reflected again in a concentrated form, as from a concave mirror. In the ox and in the sheep the greater part of the rays so reflected are brought to an ill-defined focus near the mouth. In the dog and the cat the reflected rays are more nearly parallel and are projected forward and downward in a direction nearly parallel with the median plane. In relation to the orbit in the ox and the sheep, the tapetum is principally on the outer side. In the dog and the cat it is principally on the inner side. In relation to the optic nerve, the tapetum in the ox occupies almost exclusively the upper and outer part of the back of the eyeball. In the cat and the dog it is situated above the entrance of the optic nerve, equally to its inner and outer side. In the horse the tapetum

is very well developed. It extends fully two inches in its transverse diameter when spread out. The vertical diameter is larger on the outer than on the inner side. The reflected rays from the former are directed downward and inward, as in the ox. The rays from the latter are directed more downward and forward, as in the dog and cat. Fish have no tapetum. Birds, supposed to have the longest and keenest vision, have no tapetum. The conclusions arrived at were: That by reflected and concentrated light the tapetum has an illuminating power which enables animals which possess it to see better in the dim twilight than those which have it not; that this power can be utilised only at comparatively short distances; and that the rays of light reflected from the surface of the tapetum are concentrated and directed in accordance with the habits and instincts respectively of different classes of animals.—Mr. W. H. JESSOP said that the tapetum lucidum is situate between the chorio-capillaris and the ground substance of the choroid, so as to be pierced by bloodvessels. There were two kinds of tapeta: the tapetum fibrosum, as seen in the horse and ruminants; and the tapetum cellulosum, as met with in carnivora and seals. Fishes possess in the lamina supra-choroidea a crystalline layer called the argentea, which is from its position not homologous to the tapetum; but in many deep-sea fishes a distinct tapetum exists in addition. Mr. Lee's observation on the position and use of the tapetum was valuable if such a position of the tapetum were found constantly in all animals possessing it. Against the view is the fact that many animals which undoubtedly needed a help of the kind that Mr. Lee supposed the tapetum to give—as bats, mice, and rats—did not possess it. The probability was that in these animals the retina is very sensitive to light, and that in those animals possessing a tapetum the retina is less sensitive. The use of the tapetum was probably to increase the stimulation of the retina in animals whose retinæ were not so sensitive as those who had no tapetum. Animals capable of good vision in a dim light were provided with irides having marked powers of contractility.—Mr. HENRY LEE, in reply, doubted whether deep-sea fishes had a real tapetum; there was very little light at the bottom of the sea, and so no need of black pigment. The tapetum was a distinct membrane from the choroid. The choroid may be coloured, as Hunter showed, but then it was not a true tapetum. He believed the tapetum was only of use for vision at short distances; it was always situate above the entrance of the optic nerve, and collected the dispersed light from the ground or from some near object.—Mr. BRUDENELL CARTER said that the giraffe fed from above, and this might explain why its tapetum was situate below the optic nerve.—Dr. B. O'CONNOR asked what was the microscopic structure of the tapetum.—Mr. JESSOP inquired for the evidence proving that the tapetum was altogether distinct from the choroid.

## CLINICAL SOCIETY OF LONDON.

*Ununited Fracture of Clavicle, with Symptoms of Writer's Cramp; Resection and Wiring of Fragments; Disappearance of all Symptoms.—A New Symptom of Megrim and Epilepsy.—Chronic Simple Ulcers of Stomach and Duodenum without Symptoms until the occurrence of Perforation.—Complete Recovery from Amaurosis of Malarial Origin.*

AN ordinary meeting of this Society was held on the 22nd inst., Dr. W. Cayley, Vice-President, in the chair.

Mr. BARKER read a paper on a case of Ununited Fracture of the Clavicle causing Pressure on the Brachial Plexus and Writer's Cramp, for which excision of the false joint, with wiring of the fragments, was done, perfect union of the bone and complete relief of the nerve symptoms supervening. The patient was a boy aged twelve, perfectly healthy, and with an excellent family history. The right clavicle was found soon after birth to be broken. The labour was natural, and no accident happened to the child. The mother had had a fall on the ice when pregnant three or four months. Up to three years ago the condition gave rise to no inconvenience, though there was free mobility in the false joint which had formed. He then began to complain of pain down the right arm and a sense of weight in it. Two months before admission into University College Hospital he noticed, besides the pain, that his fingers became stiff and fixed over his pencil when writing. The fingers then tended to close, and he could not get them straight without a good deal of rubbing. On admission, the right clavicle was found to be an inch and a half shorter than the left, and the shoulder to be lower on that side. The inner end of the outer fragment dipped under and behind the outer end of the inner. The broken ends were rounded off and freely movable. He was set to copy out a sheet of foolscap, and in the course of a few minutes spasmodic movements were noticed in the hand, and at the end of half an hour his writing was totally illegible, and he could not unclose the hand, while the pain in the arm was severe. Rest in hospital did not give any relief, the result being always the same. A special examination by Dr. G. V. Poore showed "some wasting of the thenar eminence, and mottling of the skin of the right arm, which was also smaller than the left. No abnormalties of sensation were noticed, but the cords of the brachial plexus in the axilla and large nerve-trunks in the arm were found more tender than on the left side. The faradaic current showed reaction in all the muscles except the first right dorsal interosseous, which made no response to a weak current, but gave a good response on the other side." On August 26th, 1885, Mr. Barker raised a semilunar flap of skin and muscle from the clavicle, resected the false joint, and wired the cut surfaces together. All was done antiseptically, and the arm and shoulder were put up in a plaster-of-Paris corset. The wound was not touched for fourteen days, when it was found quite healed without a drop of suppuration; a moist spot remained where a catgut drain had been inserted. The dressings and corset were left on for a fortnight longer, and were then finally removed, the scar being sound and the bone firmly united with callus. Shortly after, he was set to do some writing as before, and all the former symptoms were found to have disappeared. The electrical examination showed a corresponding improvement, and the finger-nails now began to grow normally, a furrow marking the difference before and after operation. Since then the arm has rapidly regained strength, and all the symptoms noted have disappeared; it is now like its fellow in power. The rarity of ununited fractures of the clavicle was illustrated by an examination into the literature of the subject, all the recorded cases being collected. The present case was shown to stand alone, both in the phenomena exhibited and in the treatment and favourable result. The rapid and perfect union of the bones was attributed by the author, in a great measure, to the complete immobilisation of the fragments by the use of the plaster corset.—Dr. G. V. POORE thought that exception might be taken to the description of the nervous disturbances as those of writer's cramp. The case was, however, a good instance of the fact that slight degrees of weakness were best ascertained by the disturbance of delicate muscular actions. The serious disturbance in writing was due to pressure of the bone on the brachial plexus. The tenderness of nerve trunks in the arms was a conspicuous symptom in this case. A tender median nerve was exceedingly common in cases of writer's cramp in Dr. Poore's experience. The diminished irritability to the faradaic current that was noticed in the right first dorsal interosseous, which was the muscle *par excellence* of manual precision, was probably a secondary phenomenon, and due to the great effort that the boy had to make in order to write. The right pectoralis major was less developed than the muscle on the left side. As to trophic changes, there was slight mottling of the skin and slight grooving of the thumb-nail, and the left finger-nails grew very much more rapidly than those of the right. A further interesting point was the complete recovery from all the symptomsafter the operation.—Dr. HUGHES BENNETT said he could not but agree with the previous speaker that much confusion arose from using the term "writer's cramp" indiscriminately. Writer's cramp was a peculiar general neurosis that set in as the result of exhaustion due to excessive writing. In Mr. Barker's case the local irritation of the brachial plexus disturbed the powers of writing by the cutting off of cerebral influences from the hand; but it was unlike genuine writer's cramp, which ran a totally different course, and was regarded by some as an incurable disease, though others asserted that by various measures a cure could be effected.—Dr. R. J. GODLEE congratulated Mr. Barker on the success of his surgery. In a conversation with Sir James Paget, that gentleman observed that he had only

seen two or three cases of non-union of bone dating from birth. Sir Wm. Fergusson had seen one of the cases, and had said there was no chance of obtaining a union; after this opinion Nélaton performed some operation in the same case, with only a temporary success, for the union broke down. In Sir James's second case amputation was resorted to, as all other measures failed. Mr. Godlee had seen one case in a child three years old, in which there was non-union of fracture of both bones of the leg; in this case resection had been performed twice without success.—Mr. A. E. BARKER, in reply, said he would not like to defend the expression "writer's cramp," but had used it for convenience of description.

Dr. ANGEL MONEY read a paper on a New Symptom of Megrim and Epilepsy. The patient in whom the new symptom was noted was a man aged twenty-nine. He had suffered from many of the symptoms that are usually put down under the heading of megrim, such as transient hemiopia, spots and flashes of light, headache with and without nausea, and abnormal tactile sensations. When about eleven years old he used to faint with a queer sensation at the epigastrium. The new symptom consisted in an apparent momentary lengthening of a written or printed word during reading, caused by a reduplication of one or more of the letters in the word. The patient observed that this annoying symptom was most frequent when the flashes of light were most troublesome. Another noteworthy fact in connexion with his visual organs was the long persistence of negative images, a condition which was not always present, but only at the times when he felt "bilious." There had never been convulsions or motor spasm of any kind; nor, with the exception above mentioned, has he ever lost consciousness. At times the patient was troubled with a ringing noise apparently in his right ear; he was, however, distinctly though not very deaf on the right side. Reflecting on this symptom of apparent lengthening of a word, it occurred to Dr. Angel Money to ask his patient whether he ever experienced a similar alteration in the length of spoken words. This was answered in the negative. There was no weakness of any ocular muscle, and only a trifling degree of myopia. The author remarked that there were many ways of interpreting this symptom. He did not think there was any fraud, or reasonable doubt that the symptom was a real one. Was it due to some transient disturbance in the muscular mechanism of the eyes? The author thought this supposition not at all improbable. But he considered that, theoretically, it must not be overlooked that we might have to do with a symptom belonging to what may turn out to be an altogether new field of sensory nervous symptoms, by which he meant a group of symptoms which might best be designated as "reduplicated sensory nervous actions." If the patient be right in his opinion that one of the letters of a word is doubled in the apparent lengthening, then it would not be at all absurd to regard the phenomenon as due to the reduplication of a nervous discharge in the visual word centre.—Dr. STEPHEN MACKENZIE said he did not gather whether the phenomena occurred whilst the patient was writing or at other times also. He had observed a similar thing in some cases of aphasia, in which there was a doubling or more frequent repetition of a sound, the phenomenon being known as "barrel-organism." The portion of the brain involved in the mechanism would be readily indicated if the phenomena described by Dr. Money were of this nature.—Dr. B. O'CONNOR said that he had observed something of a similar kind in a printer with whom he had considerable difficulty in the matter of correcting proofs. He thought such symptoms were not of infrequent occurrence in cerebral affections. Half a line may seem to some nervous people to be absent in reading. He did not know whether it was not a case of conscious observation of symptoms which at other times passed unnoticed.—Dr. ANGEL MONEY, in reply, said the phenomenon was purely subjective, occurring to the patient only during reading.

Dr. SAMUEL WEST read a paper on Chronic Simple Ulcers of Stomach and Duodenum without Symptoms until the occurrence of Perforation. Hannah A——, aged forty-eight, while eating, was seized with sudden severe pain in the epigastrium, which continued until her admission into hospital a month later. She had vomited, but food produced neither pain nor sickness. She had rapidly lost flesh and strength, and had recently perspired at night, and for a few days had had a cough which caused her pain in the right side and back. She had been all the time confined to bed, and a bedsore was found upon the right buttock a fortnight before admission. Though she had been losing strength lately, there was no history of any ailment before the present illness. There had never been any pain or discomfort after food. The patient looked very ill. The respiration was 46, shallow, with some general rhonchus; the pulse was 120; the temperature was 99°: the urine contained a trace of albumen; the liver was uniformly enlarged. Some tenderness was noted above the umbilicus and towards the right hypochondrium. There was no ascites, but some œdema of legs. Two days after admission, she passed with a stool about six ounces of dark blood, and also on the two following days. She rapidly became weaker, and died on the fifth day after admission. At the necropsy some old chronic pleurisy and pericarditis was shown to have existed. The liver was enlarged, with a superficial abscess between it and the abdominal walls. This abscess had two openings—one leading from the duodenum, and due to perforation of an old ulcer; the second into the colon, probably accounting for the hæmorrhage. Another large chronic ulcer was found upon the lesser curvature of the stomach, which had also perforated, and led into a cavity with thick fibroid walls, the base of which was formed by the liver. The two ulcers were of very old date, the symptoms being produced by the perforation of the duodenal ulcer and the formation of the abscess. Two points were noteworthy—1, the extent and duration of the ulcers without symptoms; 2, the lowness of the temperature in spite of active suppuration.—Dr. CAYLEY related the case of a healthy working man who died two days after admission to hospital. There was an ulcer of the duodenum that had burst into the peritoneal cavity. The man was certainly in the best of health till the onset of the perforative peritonitis.—Mr. TAYLER narrated the case of a servant, an anæmic girl aged twenty, who had no symptoms of gastric disease, and died very suddenly from an ulcer of the stomach that had perforated.—Dr. S. WEST remarked on the lowness of temperature in his case, notwithstanding the occurrence of suppuration.—Dr. S. MACKENZIE alluded to a paper in THE LANCET (vol. ii., 1885). In the fatal cases of gastric ulcer that occurred at the London Hospital for a period of ten years not one was recorded as without symptoms. But in 1874 Dr. Mackenzie met with such a case, in which death occurred in two days from the onset of symptoms of perforation.—Dr. F. J. GOODHART considered that cases of ulcer of the duodenum were in a different category from those of gastric ulcer. Duodenal ulcers were not very common, and probably owned the same pathology as gastric ulcers.—Mr. R. J. GODLEE referred to the case of a man who had a tumour in the femoral region that contained peritoneal fluid. The man was supposed to be suffering from lead colic. The hernial sac was found to contain highly offensive purulent fluid. The case did not progress satisfactorily, and the patient died with swelling of the parotid. An ulcer was found in the second part of the duodenum.—Dr. S. WEST felt quite certain that there was not even anything that could be called dyspeptic in his case. He had known a case of duodenal ulceration to be attended with considerable symptoms.

Mr. BRUDENELL CARTER read a case of Recovery of Vision after Amaurosis consecutive to Malarial Fever. The patient was a gentleman about thirty-five years of age, who was chief of the police in a West Indian colony. He came to the author on July 15th, 1884, his vision being then reduced to little more than qualitative perception of light. His history was that, in November, 1883, after very fatiguing duty in unhealthy parts of the colony, he was seized with a fever of malarial origin and malignant type, which nearly proved fatal. When he had otherwise fairly entered upon convalescence, his pupils remained widely dilated and insensitive to light, and it was observed that he had to feel for a feeding-cup or other object which was offered to him—a condition from which he made no advance. Mr. Carter found the optic nerves very white, as if from atrophy, and the larger vessels lifted up in bold curves as they crossed the margin of the disc, showing that the atrophy was consecutive to pre-existing swelling. The ophthalmoscope also showed hypermetropia 4 D, with some astigmatism. There could be no doubt that the fever had been attended by optic neuritis, probably connected with meningeal trouble, and that vision was being destroyed by the contraction of effused material. Notwithstanding the unfavourable prospects of the case, the author determined to carry out the plan of treatment which he had several years ago laid down as

appropriate for similar conditions—namely, to endeavour to promote the absorption of effused material by mercury and iodide of potassium, and to stimulate the nutrition of the optic nerves by strychnia. The patient wished to take up his temporary residence in Birmingham, and Mr. Carter had the good fortune to obtain the co-operation of Mr. Bartleet in carrying out the necessary measures. Perchloride of mercury and iodide of potassium were administered by the mouth, in moderate doses; and sulphate of strychnia hypodermically, in doses which commenced with one-sixtieth of a grain, and were gradually increased to as much as one-seventh, when the injections were followed by stiffness and rigidity of the muscles of the legs, and the dose was necessarily reduced. On Aug. 4th, or rather more than a fortnight after the commencement of the treatment, the patient reported that although he could not see to read or write, he thought he had improved in sight as far as concerned general objects, and he was thereupon encouraged to persevere. In another month the improvement was no longer doubtful, and after five months of treatment, in December, 1884, the error of refraction being corrected by suitable glasses, he was found to have one-third of normal vision, and to be able to read No. 6 of Jaeger in the hand. On Jan. 10th, 1885, Mr. Carter received a letter from him in perfectly good and legible handwriting, except that the lines were uneven and irregular. In this letter he said, "Will reading the newspaper by gas-light hurt my eyes? After reading a little time the words appear as if coming out of a fog, if I may so describe it, and occasionally a sort of flash of colours (similar to colours which appear on cut glass when the sun shines upon it) comes before my eyes. It is, however, a great comfort to be able to read at all." By March 20th, 1885, his vision had increased to one-half, and he read No. 2 of Jaeger. By July 21st vision had reached two-thirds, and in another month it was normal, and No. 1 of Jaeger was read easily. The patient was not conscious of any remaining impairment, except that he saw badly on coming from a stronger light into a weaker one, as if the retina required a decided stimulus. At this time the optic nerves were still pale, but many small vessels, previously invisible, were to be seen upon their surfaces. The patient wrote in even lines, and in the following month he returned to his official duties. At a somewhat late stage in the course of the treatment it became necessary to relinquish the hypodermic injections, in consequence of every puncture having for some time past become the seat of painful inflammatory swelling; and, from thenceforward, the strychnia was given by the mouth, alternately with mercury and iodide. The author remarked upon the great perseverance of the patient, and bore grateful testimony to the way in which he had been assisted and supported by Mr. Bartleet.—Dr. S. MACKENZIE said that in this country cases of malaria were not accompanied by optic neuritis, but in countries where malaria was both frequent and severe optic neuritis was more common, as Dr. Hammond had pointed out. The value of treatment by iodide of potassium was to be witnessed even in cases of cerebral tumour, where the optic neuritis could be seen to subside, though the patient died from the effects of the tumour. He inquired with what object strychnia was given subcutaneously, and asked why it might not have been combined with the other medicines. It was rare to meet with cases of optic neuritis, in which the deterioration of sight was so great as in Mr. Carter's case, that improved so markedly by treatment.—Dr. J. ANDERSON inquired for a history of syphilis, and also as to the state of the optic discs when the patient was last seen.—Dr. S. COUPLAND mentioned the case of optic neuritis that Mr. Emrys Jones had so greatly relieved by a course of mercury.—Mr. B. CARTER, in reply, said that by employing the hypodermic method of administration of strychnia he obtained more trustworthy results than by administration by the mouth. The patient was a gentleman of high official position, and of decorous conduct and wholesome life, and there was no history of syphilis. The patient had suffered from ocular troubles due to hypermetropia, and was a moderate smoker. The optic discs were still pale when last seen, and the small vessels were reappearing. Mr. Carter believed that strychnia acted as a stimulant to the nutrition of the optic nerves.

The following living specimens were shown:—Dr. Stephen Mackenzie: A case of Elephantiasis of the Leg. Mr. R. W. Parker: Congenital Tumour in Lumbo-sacral Region, containing Bone. Mr. A. E. Barker also showed the boy whose case he narrated.

## MEDICAL SOCIETY OF LONDON.

*Theory of Fever.—Pyæmia after removal of Sarcoma from Base of Skull; recovery.*

AN ordinary meeting of this Society was held on Monday last, Dr. W. M. Ord, President, in the chair.

Dr. THUDICHUM read a most elaborate and abstruse paper on the Theory of the Febrile Process, its accompanying Chemical Changes, and the Modes in which it produces Immunity from further Attacks and Death. He believes that an alteration in the atomic volume of bodies is a considerable factor in the development of heat. In febrile processes the atomic volume appears to undergo contraction with the appearance of free heat. Immunity from further synochal disease is to be explained also on the same assumption, for the atomic volume of the tissues remains more or less permanently diminished in dimensions. Speaking of the mode of death in fever, Dr. Thudichum considered that death was sometimes to be explained on the assumption of a coagulation of certain complex chemical bodies called phosphatides, and resembling, though not identical with, phosphates. Amidomyelin, one of these complex bodies derived from brain-substance, has the property of passing into the solid state by the application of a fever heat, say about 40° C. or 104° F. In certain frigid conditions, such as pertained in cholera, a fluidification of colloids took place, with the necessary production of cold. Dr. Thudichum considers therefore that pyrexia is due not only to excessive oxidation or abnormal accumulation, but also to some peculiar molecular alteration of the tissues, which, indeed, would appear to be in his theory the most important factor in showing us how it was that fever conferred immunity from further attacks of the same fever, and even, according to the author, immunity to a less degree from all fevers. Vaccination, Dr. Thudichum suggests, may not only prevent the development of small-pox, but even render the body less liable to become the seat of other acute specific fevers.

Mr. WALTER PYE read a paper on a case of Removal of Sarcoma of the Base of the Skull followed by Pyæmia, but ending in recovery. A male patient aged sixteen was admitted into St. Mary's Hospital on June 22nd, 1885. Bleeding from the throat and left nostril for eighteen months was the chief symptom. A growth behind the soft palate blocked the left nostril, interfered with deglutition, and caused several alarming attacks of dyspnœa. Preliminary tracheotomy was performed on June 24th, and the pharynx having been plugged, the soft palate was divided in the middle line; the tumour was then found to have wide connexions with the basilar process of the occipital bone, and possibly to the atlas. A stout cord of twisted wire was used to cut through the broad base of the tumour by means of a large screw écraseur, which was manipulated through the nostril. One hour and a half was spent in dividing the tumour, which was exceedingly vascular. The hæmorrhage was checked by ice. The patient left the hospital apparently well twenty-six days after the operation. The tumour was a myxosarcoma. Ten days after his discharge he was readmitted with a temperature of 105·4°, with pain in the shoulders, knees, wrists, and one ankle. His illness resembled an acute attack of rheumatic fever rather than a pyæmia. The patient remained very ill for two months and a half. The joints remained swollen and became purulent when they were opened, discharging thin curdy pus. A large ulcer formed in the muscles of the right thigh, and another in the gluteal region. Abscesses appeared and disappeared till the end of October, since when he has made a slow but steady recovery. The unusual nature of the operation, its successful issue, and the possible connexion between the operation and the pyæmia, were made the subject of remarks. The employment and manipulation of the écraseur through the nostril was the only practicable method of operation in the case in question. Mr. Pye considered the subsequent illness as of a pyæmic nature.—Dr. THUDICHUM had had two cases in which he had operated; bleeding was very severe, but was controlled by the galvano-cautery and perchloride of iron.—Dr. KINGSTON FOWLER asked what the microscopical nature of the tumour was, and whether the spleen or liver was enlarged.—Mr. W. PYE replied that there was no visceral enlargement; the growth was a myxosarcoma. He should not have used perchloride of iron in his case.

## HARVEIAN SOCIETY.

*Annual Meeting and Conversazione.*

THE annual meeting of this Society was held on Jan. 21st, at the Stafford Rooms, Titchborne-street, Edgware-road, and was largely attended. The business of the evening included the adoption of the report of the Council, and the election of officers for the ensuing year, of which the following is a list:—President: *J. Hughlings-Jackson, M.D., F.R.S. Vice-Presidents: Malcolm Morris, Esq.; Charles Vasey, Esq.; *T. Bryant, Esq.; *J. Cavafy, M.D. Treasurer: Thomas Buzzard, M.D. Honorary Secretaries: J. Ernest Lane, Esq., *E. Clifford Beale, M.B. Council: G. C. Field, Esq., F. Otley Lovell, Esq.; P. Kirkpatrick Picard, M.D.; W. H. Platt, Esq.; Henry Power, Esq.; T. Gilbart Smith, M.D.; John Williams, M.D.; *J. S. Brookfield, M.D.; *Arthur W. Edis, M.D.; *W. Ewart, M.D.; *T. Morton, M.D.; *H. W. Page, Esq. (An asterisk is prefixed to the names of those gentlemen who did not hold the same office the preceding year.) The thanks of the Society were voted to the members of the Council on the motion of Mr. Adams, seconded by Mr. Bartleet; Mr. Vasey replied. A vote of thanks to the Treasurer was proposed by Mr. Adams Frost, seconded by Mr. Noble Smith, and acknowledged by Dr. Buzzard. Dr. Sansom, seconded by Dr. Felce, proposed a vote of thanks to the Secretaries, to which Dr. Ewart replied. The vote of thanks to the retiring President, Dr. T. Morton, proposed by Dr. Buzzard and seconded by Dr. Davson, was carried by acclamation. In his reply, Dr. Morton congratulated the Society upon its increasing prosperity and usefulness. After a brief review of the work of the past year he proceeded to deliver the annual address. The subject was one of wide and practical interest—the Relation of Public Morals to the Public Health,—and was eloquently treated by the orator, who concluded amidst the applause of the meeting. The new President, Dr. Hughlings Jackson, took the chair vacated by Dr. Morton, and, having accorded to the latter the thanks of the Society for the address to which they had listened, declared the conversazione open. The room was tastefully decorated, and contained many objects of interest lent by members and their friends. Music had been provided, but Mr. Lazarus kindly added two solos on the clarionet to the programme which had been announced, and gave the audience a musical treat, which possessed the additional charm of being a surprise.

## CAMBRIDGE MEDICAL SOCIETY.

*Disease of Finger-nails.—Faith-healing.—An unusual case of Broken Neck.*

AT a meeting of this Society held on December 4th, 1885, Professor Humphry, M.D., F.R.S., in the chair,

Mr. LAURENCE HUMPHRY showed a patient, aged fifty-three, a married woman, suffering from a peculiar Disease of the Finger-nails. All the nails of both hands were attacked with very accurate symmetry, but not the feet. The nail was opaque, thickened and heaped up, the edges and surface broken up, irregular, and filled with dirt. The patient described it as commencing under the free edge of the nail, and then working round to the root, the nail becoming black, split up, and finally coming off. It was accompanied by a hot itching sensation, and tingling and numbness down the sides of the fingers. There was no skin eruption, or soreness by the side of the nail. Her history gave no evidence of gout or syphilis. Mr. Laurence Humphry referred to Plate 17 of Hebra's Atlas of Skin Diseases, where a similar condition was figured, and described in the catalogue as "Chronic General Onychitis."

Mr. HODGSON (Bishop Stortford) related two cases of Recovery from Empyema, in which the aspirator had been used; and a case of Pleurisy with an unusually large serous effusion, which had been treated in the same way.—A discussion followed, in which Dr. Paget, Mr. Carter, Mr. Laurence Humphry, and others took part.

Dr. RANSOM read the notes of a case of so-called Faith-healing. A married woman, about forty-five years old, in comfortable circumstances, was operated on in January, 1882, for cancer of the breast. She made a good recovery but the disease returned in the cicatrix some twenty months later, and also in the other breast and abdominal organs. Her health and strength gave way, and she became much depressed, and ceased to carry on her ordinary duties in the household. After a while she was induced by her friends to try the system of "faith-healing," but after studying the books and letters published by its advocates she could arrive at no decision for some time, till one day in June, 1885, she sent to Dr. Ransom and told him she was well, that the pain was gone, and that she was going to London to join the faith-healing sect. From June until September she went about proclaiming herself cured, and that her faith had made her whole. She gained flesh and strength, became cheerful, and resumed her household duties. In September, however, she sent for Dr. Ransom, being attacked with peritonitis, and she expressed the greatest disappointment at finding that she was not so well, and saying that she had fully believed herself to be cured. Dr. Ransom said that this was a remarkable illustration of the power of mind over matter. That she really did believe in her own cure was obvious, for otherwise how was it possible to explain the remarkable change not only in her mental but in her physical condition, her freedom from pain, and renewed bodily activity? She was not influenced by personal contact, but by studying the subject and by prayer.

Mr. FRANCIS was able, through the kindness of Mr. Carver, under whose care the patient was, to bring forward a somewhat unusual case of Broken Neck. The patient, aged fifty, was admitted into Addenbrooke's Hospital on October 8th, 1885. He had fallen backwards off a ladder, a distance of twenty feet, striking the upper and back part of his head against a plank. He was unconscious for a few minutes, and on recovering his senses was found to have lost the use of his limbs. He lay in bed with his head thrown slightly back and fixed by muscular effort in the middle line, rotation causing pain. He had perfect control over his sphincters, and his pupils were equal. Paralysis was complete in both upper limbs and the left lower limb, and there was slight loss of sensation. Examination of the spine revealed no evidence of displacement, nor was there any pain in the cervical region, but he complained of pain about the third and fourth dorsal spines. Pulse 80; temperature 97°. Urine acid; no albumen. For a month he made steady progress, had regained much power in his limbs, and the anæsthesia had disappeared. His head still remained fixed, and he was much troubled with constipation. On November 4th, there was a sudden change for the worse; the temperature was considerably raised, and suppuration manifested itself; profuse acid sweats, and acute migratory pains and tenderness in the joints succeeded, and finally effusion took place into the right knee-joint. He became delirious at night, and suffered from constant pain at the back of the neck. The paralytic symptoms returned and in four days was complete, and he lost control over his sphincters; bedsores rapidly developed, and he died thirty-seven days after the accident. At the necropsy small collections of pus were found between the muscles of the neck. The posterior part of the ring of the atlas was broken off and was freely movable; the line of fracture on both sides passed just behind the groove on the vertebral artery. The axis was also fractured, but the fragments were not movable on one another, the line of fracture passing through the posterior part of the atlanto-axial articular surfaces, between the pedicles and the body of the vertebra, the arch being separated from the body. There was no displacement, and no sign of repair. There was no evidence of hæmorrhage or pus within the meninges, and no signs of pressure on the cord or injury to the medulla. The heart and lungs were natural.

---

HEALTH LECTURES.—Sir Andrew Clark, Bart., F.R.S., Lord Randolph Churchill, Sir Frederick Pollock, Bart., and other influential friends of health, have, we understand, promised to take part in a comprehensive course of Health Lectures organised by the National Health Society, to commence on the 29th inst., at the Public Baths, Queen's-road, Bayswater. One novel feature to be introduced, with a view to enforcing the Society's motto, "Prevention is better than cure," is a simple description of the causes of disease and the way to avoid them. The lectures will begin at 8 P.M., in order to allow those engaged during the day to attend.

# Reviews and Notices of Books.

*A Practical Treatise on Fractures and Dislocations.* By FRANK HASTINGS HAMILTON, A.B., A.M., M.D., LL.D., late Professor of Surgery in Bellevue Hospital Medical College, and Surgeon to Bellevue Hospital, New York, &c. Seventh American Edition, revised and improved. Illustrated with 379 Woodcuts. London: Smith, Elder, and Co. 1884.

*Fractures and Dislocations.* By T. PICKERING PICK, F.R.C.S., Surgeon to and Lecturer on Surgery at St. George's Hospital, Member of the Court of Examiners, Royal College of Surgeons of England. Illustrated with 93 Engravings. London: Cassell and Co., Limited. 1885.

ALTHOUGH dealing with the same subjects, and treating of them in a very closely similar order, these two books are by no means alike in design and worth. Dr. Hamilton's work on fractures and dislocations is one of the modern surgical classics which presented when published the only treatise on this subject in the English language which was at all complete. It was then the result of very extended literary research and much practical observation, and, as edition after edition has been called for, its distinguished author has with unstinted labour endeavoured to incorporate into it the results of the work and observations of other surgeons, and to make it as far as possible an exhaustive treatise on this important branch of surgery. And though, in view of the progressive nature of our science and art, it is certain that finality has not been reached, yet it is impossible for a reader of Dr. Hamilton's work not to be impressed with the great amount of labour and care he has bestowed upon it, or to be unconscious of the conspicuous value and merit of the volume, which is, and will probably long remain, the standard treatise on fractures and dislocations in the English tongue.

Mr. Pick's book is one of Messrs. Cassell and Co.'s clinical manuals—an unpretentious volume of 500 small pages, in which the author has sought to present to his readers a "concise and practical treatise of the causes of the various fractures and dislocations, the signs by which they may be recognised, and the appropriate treatment to be adopted for their cure." We believe that candid readers of the volume will feel that in this Mr. Pick has succeeded. The description of these injuries is in all cases clear, although brief, and the subject is everywhere presented in a practical manner. The scope of the work has rendered it necessary that it should be dogmatic to a certain extent, but throughout opposing views are dealt with in a broad and liberal manner. This is by no means a drawback, for the readers of such a manual seek for guidance from the writer's own experience. We can therefore commend Mr. Pick's work highly. At the same time, it is open to question how far the work meets any felt want, and how far it owes its production to the determination of Messrs. Cassell and Co. to publish a series of clinical manuals, which would not be complete without one devoted to fractures and dislocations. We find, for instance, that in the last edition of Erichsen's Surgery almost as much space is devoted to this subject as the whole of Mr. Pick's manual, and the discussion of it is nearly as full; so that a reader of the larger work would have no need to supplement his knowledge by consulting this special manual. Good as the work is, it is therefore open to doubt how far the publishers' anticipation of its success will be realised.

The order in which the subjects are discussed in the two works under review is so closely alike that it might almost appear that one was borrowed from the other, were it not evident that the subject hardly admits of any other order of discussion; and it is quite apparent that Mr. Pick has in no way derived more from Dr. Hamilton than any writer must who avails himself of the latter's elaborate treatise. It is interesting to note how one or two points that are much discussed are dealt with by the two authors. Thus, with regard to the immediate treatment of fractures by the application of immovable apparatus such as a plaster-of-Paris casing, Dr. Hamilton says: "The immovable apparatus, of whatever materials constructed, is under some circumstances a very simple, safe, and efficient dressing, while under other circumstances it is, as we think, eminently unsafe and inefficient. ..... Whatever its advocates may say to the contrary, the simple fact is before us that the number of accidents resulting from this practice is out of all proportion with any other yet introduced." He further on specifies the cases for which he considers it safe or unsafe. Mr. Pick says: "In the majority of fractures, however, we shall, I think, be best consulting the welfare and interests of our patient by not applying the immovable apparatus until after the subsidence of all swelling." In reference to the treatment of compound fractures, when the wound is of such a nature that its union by "primary adhesion" is not to be expected, Mr. Pick says: "Under these circumstances there is no plan of treatment which will give such favourable results as the antiseptic treatment of Sir Joseph Lister." Dr. Hamilton is, however, "far from being convinced that, in the case of compound fractures or of other wounds," the Listerian treatment "is capable of doing all that is claimed for it..... In short, if the method of Mr. Lister has any advantages—and it no doubt has,—these advantages consist in the continuous application of a mild stimulating lotion, &c., and not, as has been taught by some surgeons, exclusively, or even mainly, in the employment of an antiseptic." Most of our readers will agree that the English author has expressed a sounder estimate of the value of antiseptic surgery in the treatment of compound fractures than his American *confrère*. Nor is the reason far to seek, for Dr. Hamilton's description of the Listerian dressing scarcely bears evidence of a thorough familiarity with its precise details. After noting this divergence of views we will quote Dr. Hamilton's opinion on the use of a metallic suture for primary simple fracture of the patella. After quoting many opinions adverse to this procedure, he says: "To the testimony thus accumulated against this operation I wish to add my own—that it is offering a very grave and dangerous substitute for others perfectly safe, and, so far as is yet proven, equally efficient methods; it is hazarding the life of the patient without offering any equivalent." Mr. Pick says: "I would not consent to have this operation performed on myself, and I do not, therefore, feel justified in recommending it to my patients." From this view very few surgeons either in Europe or America will now dissent.

We have been disappointed in not finding a notice in Hamilton's work of fracture of the shaft of the femur by torsion; and his account of subastragaloid dislocations of the foot is far from complete and singularly out of proportion with the long descriptions of dislocations of the astragalus.

## OUR LIBRARY TABLE.

*Manuel des Injections Sous-cutanées.* Par MM. BOURNEVILLE et BRICON. 2e Edition. 1885.—*Manuel de Technique des Autopsies.* Par MM. BOURNEVILLE et BRICON. Paris: Delahaye et Lecrosnier. 1885.—These two compact and handy little books belong to the series of *Publications du Progrès Médical*, and have been compiled with a care and completeness that must render them of considerable utility. The manual on subcutaneous injections opens with a description of methods, instruments, precautions, &c., and then deals in turn with every drug that has been at one time or another prescribed for administration in this manner, the authors prudently refraining from endorsing many of these medicaments

with their personal recommendation. The alphabetical arrangement of the articles greatly facilitates reference, and we have no hesitation in commending the book to notice. The other manual deals with its subject in two parts; the first being devoted to a recital of the regulations for post-mortem examinations in France and abroad, and a comparison of the facilities afforded, with many other details of administration, means for instruction, &c.; whilst the second part is that which gives the title to the work, the several stages of a complete autopsy being fully detailed. As may be expected, preference is given to the method of examining the brain by vertical sections, and reproduction of Pitres' well-known figures illustrate this portion of the work. The plans of pathological institutes of the best and completest type are appended. The authors do not seem to have inquired much into the practice of British institutions (with the exception of Edinburgh), but they contribute some interesting information upon various continental institutes—viz., as to post-mortem examinations being compulsory or not; and we cannot forbear quoting the following statement: "A Edinbourg, l'autopsie n'est pas obligatoire, les parents et les amis peuvent s'y opposer. Les Catholiques s'opposent généralement à l'autopsie, mais cette opposition peut-être levée par le prêtre à la demande du médecin." We learn also that in Paris and in some other continental cities post-mortem examinations are forbidden upon members of the Jewish community; and the facts on this head and others have evidently been collected with the laudable desire to get rid of certain restrictions which obtain in Paris.

*University College Hospital and St. Bartholomew's Hospital Reports.*—The first of these volumes deals with the surgical and medical cases that have been treated in the hospital during the year 1884. It is without exception the most complete and detailed report that has ever been issued from this hospital. The labour which has evidently been spent in its production reflects great credit on its chief author, Mr. Bilton Pollard. The medical cases at this hospital, as at so many other institutions, are given simply statistically. We think this is to be regretted. The surgeons at University College must feel the value of so exhaustive a guide to the surgical work of the past year. Such a report as the one before us practically does away with the necessity of referring to the case-books, for all the important and interesting cases are carefully recorded in detail. Considerable judgment has been exercised by the author in the selection of cases for detailed treatment. The labour attendant upon the production of hospital reports is so great that by common consent criticism has always been of the most tender description, though there has often been room for it. Mr. Bilton Pollard's report, however, would stand the test of severe criticism.—The report of St. Bartholomew's Hospital consists of statistical tables of the patients under treatment during 1884. Its scope is not the same as that of University College Hospital, still a large amount of information has been brought together by its authors, Dr. S. West and Mr. A. A. Bowlby In the surgical appendix we observe that there were three cases of varicella gangrenosa and three of hydrophobia. Several of the more interesting cases have been reported in the journals and at the Societies.

*Handbuch der Physiologischen Optik.* Von H. von HELMHOLTZ. Zweite Auflage. Erste Lieferung. Leipzig: Leopold Voss. 1886.—The first edition of this valuable work in the original German has long been exhausted, and even the French translation has become exceedingly rare; it is therefore with great pleasure that we welcome the first instalment of a new edition. The author states in his preface that he has himself been unable to verify all the more important facts given, as he had the time and ability to do for the first edition; but he has endeavoured to incorporate all the essential points of progress that have accumulated in the course of the last twenty years. He has thus been enabled to make many of his former statements more clear, and to corroborate them by recently ascertained facts when they required support. Many of the illustrations have been replaced by newer and better ones. The present part, extending to eighty pages, is chiefly occupied with the anatomy of the eye. The ophthalmometer is described, and an account given of the mode of ascertaining the precise curvature of the cornea. The remainder is occupied with the commencement of the subject of physiological optics.

*Histoire du Choléra aux Indes Orientales avant 1817.* Par J. SEMMELINK. Utrecht: C. H. E. Breijer.—Dr. Semmelink, who was formerly principal medical officer to the army in the Dutch eastern possessions, has compiled an interesting work on the history of cholera in the East prior to 1817. Much of the work had been done before, and the author quotes largely from many English physicians and surgeons who had studied and written on the same subject. Dr. Semmelink holds to the view that Asiatic cholera had existed from time immemorial in what now constitutes British India, and that it was only in 1817 that it quitted its normal abode to spread into Asia and subsequently into other parts of the world. The work, which does not profess to be much more than a compilation, dives into the most ancient literature relating to the subject, and will be useful as a book of reference to all who are interested in the history of cholera.

*Under the Red Crescent; or, Ambulance Adventures in the Russo-Turkish War of 1877-78.* By R. B. MACPHERSON. pp. 213. London: Hamilton, Adams, and Co. 1885.—This volume gives a very readable account of the scenes through which Mr. Macpherson passed during a service of about five months as surgeon with the Red Crescent Ambulance in Bulgaria in 1877-78, and the hardships which the medical officers endured. His description of the treatment they received from the Russians when taken prisoners by them at Sofia is anything but flattering to the officers of that army. The personal adventures of the author form the chief subject of the book, and no details are given of the professional work done by the medical staff of the ambulance.

*Hints on the Use and Handling of Firearms.* By Lieut. H. O. CURLING. pp. 42. London: Dulau and Co. 1885.—A study of this little work, and compliance with the instructions given in it with regard to the handling of firearms, would undoubtedly have a beneficial effect in reducing the number of accidents which unfortunately result so frequently from ignorance and carelessness. The necessary precautions are clearly laid down and easily carried out.

# New Inventions.

## THE ELECTRIC LIGHT APPLIED TO THE OPHTHALMOSCOPE.

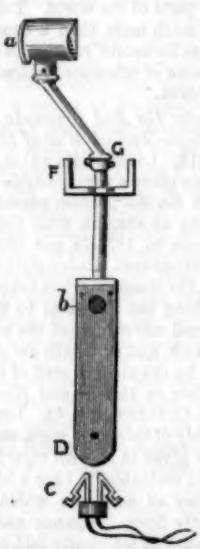
THE incandescent form of electric light is so convenient in many ways, that it is not surprising to find it has been adapted to sundry medical instruments. To adapt it to the ophthalmoscope I finally decided upon the following plan—viz., to fix a small incandescent Swan lamp close to the oblique mirror of an ophthalmoscope, arranged in such a way that the light from the lamp should be reflected to a focus in a direct line with the sight-hole, so that the brightest illumination should always be exactly in front of the sight-hole. As the lamp is fixed to the ophthalmoscope and moved with it, it follows that the relation of the illuminated spot and the sight-hole never varies. For helping me to carry out this idea into detail I am

much indebted to the skill of Mr. Panton, of the firm of Messrs. Pickard and Curry. The electric lamp and handle I have had adapted to Morton's ophthalmoscope, but such an arrangement could be adapted to any ophthalmoscope.

The construction of the instrument is simple, as can be seen by a glance at the accompanying woodcut. Fig. 2 shows the small cap (*a*) which encloses the Swan lamp. The cap is silvered on the inside with a reflector, seen shaded dark in Fig. 1. The Swan lamp is in the middle of the cap, and in front is a small bull's-eye lens which concentrates the light on the mirror. This cap is covered externally with wood, so as to insulate the heat from the lamp, which becomes hot if kept at full incandescence for ten or fifteen minutes. The Swan lamp is so fixed as to be easily removed and replaced by another, in case of any damage. The wires from the lamp are carried down within the handle, and entirely concealed from view. Contact with the battery is made by pushing a little contrivance (C) into the end of the handle (D). It holds by the little notch seen on each side (*e*). It can be at once detached by pressing the two little projections at the side seen at *e*, Fig. 1. This avoids the delay and inconvenience of

FIG. 1.

FIG. 2.




having to screw and unscrew the connexions. Any of the flexible conductors may be used to make contact with the battery. The button (*b*, Fig. 2) enables the surgeon to turn the light on or off, as desired. In Fig. 2 (F) is shown the means for fastening the handle with the electric lamp to the ophthalmoscope. The two pins slip into two spring clips added to Morton's ophthalmoscope. A collar (G, Fig. 2) enables the handle to be rotated, and thus the lamp can be turned to the right or to the left side of the mirror, so as to suit the examination of the right or left eye of a patient. A small catch (G) stops the rotation when the lamp is in proper position. This is the whole arrangement about the lamp. The only additions I have made to Morton's ophthalmoscope are the two clips already mentioned, and an oblique mirror of short focus, with a sight-hole oval laterally. This mirror fits into the clip, where the larger mirror of the ophthalmoscope is placed. This smaller mirror is set so that it lies at an angle of 45° to the plane of the ophthalmoscope. Thus, when the lamp is fixed at the side thereof, parallel to the plane of the ophthalmoscope, it follows that the light is focussed exactly in a line with the sight-hole. Fig. 1 shows the instrument adjusted for examination of a patient's left eye, since it is convenient to have the lamp to the outer side of the eye under examination, otherwise the patient's nose would come in its way. To adjust it for examining the patient's right eye, all that is necessary is to rotate the handle of the lamp to the opposite side, till the catch (G, Fig. 2) stops it. It is then in the same plane as the ophthalmoscope. The oblique mirror, of course, has to be turned round, so as to face the lamp. In doing this I find it is best to look straight down the sight-hole, keeping the eye about eight to ten inches from the mirror, and to turn it till the image of the incandescent filament appears round the sight-hole.

This instrument is intended for the direct method of examination of the eye, and is used precisely in the same way as the ordinary ophthalmoscope. The light is pleasant, and quite as well borne as the usual gas or lamp light used in ophthalmoscopic examinations. By this arrangement it is easy for an inexperienced person to see the fundus oculi, and especially so if the pupil be dilated. The light is on the spot he looks at, and always follows the movements of the instrument. The light is never lost. On this account it may prove a useful demonstrating ophthalmoscope. The colour of the parts is nearer that seen by daylight than can be got by the ordinary artificial light. The lamp can be detached in a second, and used independently for oblique illumination in examining the cornea or lens. I have used this lamp in needling operations. The ophthalmoscope can be used in the ordinary way, since the oblique mirror can be removed, the additions in no way interfering with it.

As to the source of the current, I have used lately four cells modified Leclanché battery. This gives a moderate light for about eight minutes, and then requires twenty minutes' rest. The bichromate battery, as employed at Moorfields Eye Hospital is probably the best form of stationary battery. Two small Grove cells will give a good light with this lamp for three or four hours or more. Pocket accumulators have hitherto disappointed me. Mr. Joseph Swan has recently made a reliable accumulator, which is quite portable, and, fixed with a specially constructed Swan lamp, gives a good light for twelve hours. It can then be re-charged. Mr. Swan is now perfecting these accumulators still further, and it is very probable that medical men will then be provided with a portable and trustworthy source of electric current, which will not only be useful for lighting purposes, but also for galvano-cautery, &c.

J. MCKENZIE DAVIDSON (Aberdeen).

## THE TREATMENT OF PERTUSSIS.

*To the Editor of* THE LANCET.

SIR,—With reference to Dr. Cory's remarks on the above subject in your issue of the 9th inst., and especially with regard to the antiseptic treatment of the same, I am very pleased to have this opportunity of corroborating his views and of adding a view of my own. I would suggest that the carbolic acid, or anything else which is used, should be in the form of a spray. The carbolic acid may be very successfully given by means of an ordinary steam spray, simply allowing it to be diffused through the apartment. A solution of 1 in 20 will be found very suitable, and this should be directed towards the patient's face and as near the face as may be found agreeable. By this plan no internal drugs should be necessary so far as the pertussis is concerned. This system, if judicially carried out, ought to cut short any attack in an individual, and it will at the same time act as a disinfectant generally. These remarks so far have a special bearing on pertussis, but they will be found equally applicable in many other diseases, such as measles, scarlatina, croup, diphtheria, and phthisis, or any other affection of the air-passages. I consider this idea, when properly carried out, will open up a new field in the treatment of disease generally, and the above may come within the range of the surgeon. I have adopted this system in a number of cases, and found it most satisfactory as far as the patient was concerned, but not so very satisfactory (from a financial point of view) for me.

I am, Sir, yours respectfully,

Bury, Lancashire, Jan. 13th, 1886. GEO. C. RICHARDSON.

# THE LANCET.

*LONDON: SATURDAY, JANUARY 30, 1886.*


THE Profession is under a deep debt or gratitude to Dr. WILLIAM OGLE for the paper read before the Royal Medical and Chirurgical Society on Tuesday evening, on Mortality in the Medical Profession. We commend it to the deep study of every medical practitioner, especially those portions of it with which he may feel least pleased or which he may regard as least creditable to the profession. The science of statistics is a very impartial one, and in the hands of Dr. OGLE we may be sure that nothing has been set down in malice to the profession of which he is a distinguished member. We have only therefore to be grateful to him for a contribution of deep significance to the statistics of the profession. Statistics, though impartial, are capable of being so grouped and crystallised as to convey wrong impressions. We may hope that further investigation and criticism will show that this is the case with regard to some of Dr. OGLE's conclusions. But we shall do well to assume that in the main they contain a good deal of truth, and impress on the physician to regard his own health with that of his patient as being equally within his responsibility.

Our readers will peruse the carefully prepared abstract of Dr. OGLE's paper (published in another column) for themselves, and they will see that his account of the mortality of the profession is on the whole unsatisfactory. According to his tables that mortality is high, and is increasing. It was not only higher in 1880-1-2 than that of other callings and professions, but higher than that of medical men twenty and ten years before—in fact, a progressively increasing mortality. While the mortality of the legal profession in 1880-1-2 was 20·23 per 1000, and that of the clerical profession only 15·93, that of the medical profession was 25·53. Compared with other callings—with trades not very favourable to health—the medical profession is more deadly. Thus, the mortality of medical men is greater than that of teachers of the same age, commercial travellers, bakers, shoemakers, printers, bookbinders, masons, and coal-miners. It is less than that of innkeepers, brewers, butchers, earthenware manufacturers, cotton, woollen, and worsted manufacturers, painters, plumbers and glaziers, cutlers, and quarrymen.

Dr. OGLE has with much pains prepared a table of a unique character on the Causes of the Deaths of medical men. The material for this table has been got from copies of the entries in the Death Register relating to medical men, which registrars are paid to send to the General Medical Council. One fact of much interest is that in 1880-1-2 there were 1156 deaths of medical men in England and Wales. This may be taken, for practical purposes, as a measure of the actual deaths in the profession in this division of the kingdom. We may now consider it settled that 385 deaths of medical men happen yearly in England and Wales. If we consider that the mortality of medical men in Scotland and Ireland is enough to double this number—which is an extreme supposition—this would give us a loss of 770 medical men in the United Kingdom by death, a number which is exceeded by hundreds every year of additions to the Register, and one which falls short of Dr. PLAYFAIR's estimated waste of the profession by about 800! Still, Dr. OGLE's statistics, and especially his interesting table in which he gives the comparative mortality of medical men over twenty and that of other males in the general population of similar age, remain to be considered. We can only here indicate its principal points. According to it, medical men die in much larger proportion than other men of corresponding age of the following chief diseases. The two figures after the disease mentioned show at a glance the deaths per 1,000,000 of medicalmen and of all other men respectively—thus: scarlet fever, 59, 16; typhus, 79, 38; diphtheria, 59, 14; enteric fever, 311, 238; malarial fever, 46, 11; erysipelas, 172, 136; alcoholism, 178, 130; gout, 291, 78; rheumatic affections 251, 215; malignant disease, 879, 790; diabetes, 284, 108; diseases of the nervous system, 4565, 4268; diseases of the circulatory system, 4142, 2934; liver disease, 1744, 744; other diseases of the digestive system, 973, 632; calculus, 86, 30; diseases of bladder and prostate, 634, 287; other diseases of the urinary system, 1520, 665; suicide, 363, 238. In regard to phthisis and diseases of the respiratory organs, medical men compare very favourably with other classes.

The remarkably greater fatality from epidemic diseases—save small-pox, from which medical men protect themselves by vaccination, but not to the extent that they might—will correct the public impression that they have charmed lives and hidden means of resisting infectious disease. They are like soldiers: their profession involves high risks, with a certain amount of unwise contempt for them, bred of familiarity. Much of the other excessive mortality of medical men is only a natural consequence of the arduous and anxious calling which they follow, in which competition is great and increasing, and in which sleep and food, that come to all else with regularity, come to them brokenly and irregularly. However, to be forearmed is to be forewarned, and we cannot doubt that in the clear light of Dr. OGLE's information medical men will set themselves to counteract the causes of their ill-health. The glory of the medical profession is that it promotes the health of others rather than that of its own members. But example is better than precept, and we may do yet more good by exemplifying the powers of medicine in our security as we do in the case of small-pox. The part of Dr. OGLE's paper that needs the most serious consideration is that which seems to show the greater liability of medical men to gout, liver disease, urinary disease, &c. This is largely to be explained by the irregularities of medical life and feeding, and the tendency of a busy and worried medical man to put himself off with a hasty glass of wine or beer instead of a regular meal. Dr. PARKES used to measure his alcohol in a minim glass. This is the lesson of medical science in regard to alcohol, and to no man is it of more importance than to those who have so many more risks and so few more comforts than other men.

---

GENERALISATION is the aim of pathological inquiry; but the attempt to attain it has too often been the source of much error and confusion. Nor is this to be wondered at,

seeing how incomplete is our knowledge upon many essential points of pathological investigation. So far as generalisation is the outcome of a collation of well-observed facts, and in proportion as it comes to be less the offspring of theory, is it likely to be sound and just. Too often, however, has theory or *a priori* conception been suffered to form the basis of a general inference, and the inevitable overthrow of the superstructure occurs in progress of time. There could hardly be selected a better instance of pathological generalisation than the doctrine of "arterio-capillary fibrosis" which was propounded by Sir W. GULL and Dr. SUTTON more than ten years ago. It had much support in observed facts, both clinical and pathological, and was rendered even more attractive by the wide-reaching speculation which sought to place it almost amongst the normal physiological changes of the organism. In spite of this, the doctrine has failed to be received with that universal assent which, were it really the expression of a law of nature, it must have commanded. Probably this is in some measure owing to the theory upon which it was based, and not so much to the actual connexion between the vascular lesions and fibroid changes in organs. A similar conception, but one approached from a different point of view, has been during the past few years a favourite theme of M. HIPPOLYTE MARTIN, to whose article on the subject in the current number of the *Revue de Médecine* it may be useful to direct attention.

Briefly M. MARTIN's thesis is this: that sclerosis and allied changes in tissues and organs are not inflammatory nor due to any primary lesion of the tissue itself, but constitute a passive process, a dystrophic change, depending upon the progressive obliteration of the smallest nutrient vessels by endarteritis. Many diseases in which sclerosis plays a part are induced by conditions which would favour the production of a progressive obliterating arteritis. Such poisons as alcohol and lead, for example, may rationally be supposed to exert their initial effect upon the delicate lining of the vessels traversed by the blood they contaminate; and few will question that the coarser arterial lesions of syphilis are evoked in a similar way. But the etiology of sclerosis is not by any means limited to such gross agencies, and in order to explain the far wider occurrence of fibroid changes than can be thus accounted for, M. MARTIN is compelled to invoke the agency of trophic nerves and to imagine that, deprived of their influence, the arterial endothelium swells and proliferates. To do this he has first of all to prove the existence of a tropho-neurosis, and thus meets at the outset with difficulties which may prove insuperable to the acceptance of his generalisation. At the same time, whether by trophic agency or not, the fact remains that in all the conditions he enumerates the smaller arteries are to be found obliterated in the very earliest stages of the degenerative change. Thus, taking atheroma of the aorta as an instance of what he terms a "dystrophy," he has detected obliteration of vasa vasorum in the affected area even in those cases where minute atheromatous patches are met with in childhood. The effect of the failure of nutrition to the wall is to cause a fatty degeneration of the higher tissues—e.g., the muscular fibres—and a compensatory increase of fibrous tissue. This is in one sense a reversion to the old doctrine of atheroma, for it obviously does not regard it as an inflammatory condition. In support of this view M. MARTIN avers that the smaller arteries which escape atheromatous changes are just those which have no vasa vasorum, but, like the latter, they are disposed to become the seat of obliterative endarteritis, and thereby bring about sclerosis of the organs they supply Applying this doctrine all round, he ascribes the sclerotic changes of the cardiac valves and in the cardiac muscle itself to obliterative inflammation of the intima of their nutrient vessels. In the kidney the same process plays naturally a great part in the production of these changes, which when advanced form the granular or cirrhotic kidney; but he finds it impossible to ascribe more than the initial stages of this disease to pure denutrition. Consequently, to explain the contraction that ensues, and the extent to which fibrous tissue replaces the wasted and shrivelled tubules, the intervention of inflammation is invoked; but not as an essential part of the process, for in his doctrine renal cirrhosis may be wholly free from interstitial nephritis, being solely and simply the outcome of defective blood-supply. In this paper he touches but lightly upon sclerosis of the nerve-centres, having previously discussed its origin in more detail; but it is plain that he regards even posterior spinal sclerosis as produced by the obliteration of nutrient arteries, and not as primarily a disease of the nerve tubules. The change they undergo is, as in the parenchyma of other organs, purely a passive regressive change. The same chain of events, primary progressive obliterating endarteritis, secondary degeneration of higher tissues with fibroid substitution, is, he holds, to be found, or at any rate to be expected, in sclerosis of the lungs, liver, spleen, alimentary tract, skin and indeed in all parts of the body. In point of fact, this widespread lesion of increase of the fibrous tissue of an organ, with destruction of the functional cells, owns but one immediate cause; and this is to be found, to use Sir W. GULL's expression, within the vascular area. If inflammation intervene, it only hastens the process already initiated by the gradual diminution of the blood-supply, due to a process which is almost physiological.

It will be remembered that Sir W. GULL and Dr. SUTTON regarded "arterio-capillary fibrosis" as a condition rather of natural senility than as a specially morbid change. So here we find M. MARTIN expressing the belief that "progressive obliterative endarteritis" is the natural process that eventuates in the hardened organs of old age. On either view, the process only becomes pathological when it anticipates the advance of years or predominates in one part of the body out of due proportion. There are individual proclivities to early degeneration, and there are agencies which promote the advance of degenerative lesions. The whole matter, on M. MARTIN's hypothesis, is referred one step further back; it requires, for instance, that we should regard atheromatous change, not as being a primary inflammatory or degenerative lesion, but as being itself dependent upon a change in the ultimate ramifications of arteries concerned in maintaining the nutrition of the affected bloodvessel. On his doctrine, then, the cardiac hypertrophy of Bright's disease is not to be regarded as dependent on interstitial nephritis, nor arterial atheroma as solely respon-

sible for the visceral disease that accompanies it, but rather that one and all are due to a "progressive pathogenic process which advances slowly from infancy to age."

THE British National Society for Aid to the Sick and Wounded in War during the Egyptian Campaign in 1884-85 has just issued a report of its operations, together with a statement of receipts and expenditure, and correspondence. The report is short and very laudatory, and thanks are profusely tendered to all who were concerned in the work undertaken by the Society. We observe with much satisfaction that the committee have taken advantage of the occasion to remove a very unpleasant feeling created by one of their previous reports, that there had been neglect on the part of the Army Medical authorities in not having made adequate provision for the sick and wounded: "They desire to take this opportunity of correcting an error which unintentionally appeared in a paragraph of a previous report, by which it might possibly be inferred that the Society claimed to be doing work on the Nile, by means of their steam launch and dahabeah, which the Army Medical Department could not of itself have carried out. Any such inference was unintentional, and would have been unjustified. With the British Army sent out to Egypt the Government provided complete supplies of medical appliances, comforts, and transport for the sick and wounded, and there was consequently not so large a scope for the operations of the National Aid Society as has hitherto existed when working with Continental armies." The *amende* appears to us, however, to confirm the doubts we have on a previous occasion expressed (*vide* THE LANCET, May 2nd, 1885) whether the expenditure of a sum close upon £20,000 was justifiable, not to supplement an already efficient service, but to provide luxuries which were by no means required for the class of persons to whom they were sent. We fully appreciate the expression of sympathy on the part of those who took an active interest in providing the funds and in carrying out the requisite service; but we think their energies were expended in a wrong direction, and that a more judicious and fully as sympathetic a course would have been followed had a large portion of the money been employed in relieving the wants and alleviating the sufferings of the women and children left at home, instead of being devoted to providing what may fairly be deemed luxuries for the troops in Egypt. The Society seems to have purchased a small steam launch and a stern-wheel steamer for the transport of their stores and to assist in bringing down invalids. But apparently the latter service was already sufficiently provided for by the Government. They also sent out trained nurses, who did very good service in the hospitals; and if we except the provision of newspapers, this seems really to have been almost the only useful work done by the Society. Soda water and effervescing drinks figure largely among the stores sent out by the Committee, and twenty-seven dozen pints of eau-de-Cologne and 359 dozen pots of jam appear also in the list.

The appendix to the report fills seventy pages, and consists, to a considerable extent, of reports of a very roseate hue, from Major J. S. YOUNG, one of the Commissioners of the Society, to H.R.H. the Princess of WALES and to Sir R. LOYD-LINDSAY, and from Mr. V. B. KENNETT-BARRINGTON, the other Commissioner, to Sir R. LOYD-LINDSAY. But while reading these reports we cannot forget that Dr. W. H. J. BROWN, one of the medical men sent out by the Society, who is spoken of very favourably by Major YOUNG, has given a different account of the manner in which affairs were conducted, or how little was being done at home for the women and children while the funds of the Society were being thus expended abroad.

It is satisfactory to learn from the report that throughout the campaign most amicable relations subsisted between the army and navy medical officers and the civilians sent out by the Society. On the subject of the arrangements made by the former, Dr. SQUIRE thus writes: "As a civilian who had exceptional opportunities for observing the medical arrangements of the force, I cannot resist mentioning the admirable nature of the preparations made. I found a hospital, almost in the desert, arranged and provided in a manner which would have done credit to a hospital at home, while nothing in the way of medical and surgical necessaries for the sick was wanting." Surely this corroborates our view of the supererogatory nature of a great portion of the service rendered by the Society. It is painful to us to speak of it in such terms, but we do so in the hope that its exertions on any future occasion may be turned in a more profitable direction.

IN the two cases of alleged criminal abortion recently investigated by the coroner for Central Middlesex, and subsequently at the police-court and the Old Bailey, there were several points of medico-legal interest and importance. Our remarks, however, will be limited to the consideration of the question as to how far the corpus luteum may be relied upon as furnishing evidence of recent pregnancy. It may be taken for granted that the assertion made by HALLER that "the corpus luteum is the effect of pregnancy alone" is demonstrably contrary to fact. The researches and expositions of Dr. ARTHUR FARRE and other distinguished observers have shown that, whether the ovum is fecundated or not, the corresponding Graafian follicle presents after its rupture certain determinate characters, which collectively negative the conclusion arrived at by HALLER. Again, the terms "true" and "false," as applied to the corpora lutea of ovulation and pregnancy respectively, are based upon unscientific data; for the initial stages of development in both instances are essentially the same. Responding to the excitation of the generative organs incidental to pregnancy, the lining membrane of the Graafian follicle takes on active change. The plicated lining becomes thicker, it assumes a deeper hue, and it vascularises and becomes firmer in consistence; or, to quote the words of an eminent writer, the construction of the corpus luteum of pregnancy is "conducted upon a larger scale and with a greater abundance of materials" than is obtained in the absence of impregnation. The plication above referred to is asserted by some to depend on the contraction of the external coat of the ovisac, but this can scarcely be an adequate explanation, for it fails to account for the increase in size which the corpus luteum undergoes up to about the fourth month of gestation. The history of the corpus luteum of ovulation is played out in about two months, whilst that of pregnancy extends over a period of

thirteen or fourteen months. COSTE, in his dissertation, says the corpus luteum of pregnancy becomes as large as the ovary itself—a somewhat exaggerated statement, whether regarded in its relation to any individual case or as a general indication of what habitually obtains. It is curious how widely at variance are our standard text-books on medical jurisprudence in the estimation of the amount of reliance that can be safely put on the evidence furnished by an examination of the ovaries *quoad* the existence of pregnancy. In the last edition of TAYLOR'S standard work the reader will find that the author, apparently rather from an analysis of the conflicting testimony of others than from direct investigations of his own, shows but little tendency to adopt the positive views entertained by GUY in his "Manual of Forensic Medicine." The latter author would lead one to believe that the corpus luteum of pregnancy is not only different from the corpus luteum of ovulation, but that it is sufficiently so for the practical purposes of enabling the medical jurist to form a trustworthy opinion in support or refutation of the contention of recent abortion—an opinion, in fact, which he would not hesitate to express on oath in a criminal court. It is not given in so many words, it is true, but the general tenour of the writer's views is such as to leave no doubt on the mind of one not specially conversant with the subject. We have no hesitation in saying that in certain cases the development of the corpus luteum is such as to warrant the conclusion that there has been a recent pregnancy—take, e.g., what was found in the right ovary on examination of the body of the girl CLIFFORD who died at TURNBULL'S house. The medical men engaged by the Treasury reported that it contained a corpus luteum more than five-eighths of an inch in diameter, of a deep orange colour, contrasting strongly with the reddish-grey tint of the ovarian parenchyma. In the absence of chronic disease of the pelvic organs, and of ascertainable signs of other sources of irritation calculated to give rise to unusual nervous and vascular disturbance in the ovary, it is but reasonable to subscribe to the judgment formed and formulated in this case. On the other hand, it must be allowed that there may be circumstances—notably, when the ovarian stroma and capsule are indurated from protracted inflammation—capable of preventing the normal development of the corpus luteum of pregnancy. In the case of the woman BURTON, in whom it was alleged TURNBULL was guilty of having illegally procured abortion, there could be no shadow of doubt that a miscarriage had happened, for, in addition to the enlargement of the womb, a considerable portion of the placenta was found attached to the uterine wall; and yet the corpus luteum observed in the left ovary, although it presented a corrugated outline, was small and of a dull grey colour, features not inconsistent with the supposition that it might have been merely the consequence of ovulation without impregnation. The capsule of the ovary, however, was so thick and dense as to effectually prevent its expanding to more than a very limited extent. The views originally held—(1) that the corpus luteum was proof positive of pregnancy, and (2) that the so-called false corpus luteum of ovulation differed in nature from the true corpus luteum of pregnancy—serve to explain the irreconcilable statements met with in the various text-books on obstetrics and legal medicine. Descriptions have been handed down from author to author either in their original integrity, or with incomplete and misleading corrections, so as to obscure the subject in too many instances by equivocal expressions and false deductions. It is, on the one hand, matter of regret that a possible valuable source of evidence should be held in disfavour, and, we may say, disrepute; and, on the other, that it might, inadvertently no doubt, be resorted to unconditionally, and so tend to the discredit of medical science and the prevention of the administration of justice. The entire question deserves and requires full investigation, and to this end it is desirable that a number of observations should be made and recorded of the exact conditions of the corpus luteum, in respect to its relation to ovulation and pregnancy. The Obstetrical Society would do well to initiate the movement, and carry it out under its direction and supervision.

---

THE question of the digestion of albumen in the intestine has been the subject of many experiments. By some, as by THIRY, it has been held that the intestinal juice possessed almost as much activity as that of the stomach itself; whilst others, as MASTOFF, denied its efficacy as a digestive agent altogether. The point has again been investigated by WENZ, who has given the results of a long series of researches in the *Zeitschrift für Biologie*. Many difficulties surround the inquiry. It is difficult to obtain perfectly normal intestinal juice. If a portion of the small intestine be isolated, as in the method suggested by THIRY, and the fluid which collects in the loop be experimented with, it is easy to object that the natural secretion is seriously modified by the operation; and if, on the other hand, proteid substances are injected into an artificially produced fistula, it is difficult to entirely prevent the intermixture of the gastric and pancreatic secretions.

WENZ, from a review of the work of previous observers, came to the conclusion that no satisfactory results could be obtained unless some means were devised by which the intestinal juice could be obtained free from foreign enzymes, and indeed from any organised ferment, whilst the observer should be sufficiently instructed to be able to recognise and to isolate the new substances which might be expected to result from the operation of the enzymes produced by the intestinal mucous membrane. Proceeding on this basis, and upon the fact generally admitted by chemists, that all hitherto known enzymes can be extracted and isolated by appropriate treatment with water, very dilute acids, alkalies, and glycerine, without any loss or impairment of their power of decomposing albumen, he first thoroughly cleansed an unopened tract of intestine of all pepsine and trypsine ferments, that strongly adhere to the mucous membrane, by washing it for a long time with water, till this fluid passed through perfectly clear. The intestine was then opened upon a glass plate, and the mucous membrane detached and subjected to somewhat complicated treatment, ending in the obtainment of a glycerine extract. In two other experiments which were made for him by Professor KÜHNE, intestinal fistulæ on THIRY'S plan—that is, by the isolation of a loop of ileum by means of a ligature and the establishment of an external opening—were made in dogs, and the intestine included in the ligatures was daily washed out for six days with normal saline solution. The maximum

amount of secretion obtained in this way from a loop thirty centimetres (about one foot) in length was 1 to 1·5 cubic centimetres; on mechanical irritation it was transparent and yellowish, possessed invariably an alkaline reaction, became slightly cloudy on neutralisation, and after precipitation with ammonium sulphate contained no peptone. To prevent putrefaction in the experiments on digestion of albumen, a small portion of thymol or a drop or two of a 25 per cent. of an alcoholic solution of thymol was added. The substances which were looked for after the action of the juice on proteids were those which have been described by KÜHNE and CHITTENDEN under the names of deutero-albumose, proto-albumose, hetero-albumose, and dys-albumose, as well as those termed anti-albumose and anti-albumid. Now, all these substances are precipitable by ammonium sulphate, but peptone is not, and an excellent means of separating them is thus afforded. WENZ, after satisfying himself on this point by many experiments, proceeded to examine the influence of acid, neutral, and alkaline extracts of the mucous membrane of the small intestine, with the result that such extracts possessed, when free from trypsin, little or no power of peptonising the proteids. The experiments on the dogs with intestinal fistulæ were not very satisfactory, owing to the serious effects upon their general health of the administration of pilocarpine, which had been given to them with a view of clearing their alimentary canal, but so far as they went they also showed that little peptonising power was possessed by the juice. These experiments, which appear to have been carefully performed by a competent observer under the supervision of so excellent a chemist as KÜHNE, are therefore in opposition to those of THIRY, LEUBE, DOBROSLAWIN, KROLOW, GRÜTZNER, GARLAND, VILLA, and others, some of whom found that fibrine appeared to be converted into peptones in acid and others in alkaline mixtures, and are in accordance with the observations of CZERNY and LATSCHENBERGER, MARKWALD and DÉMANT,—thus adding one more to the many vexed questions in modern physiology.

# Annotations.

"Ne quid nimis."

## SORE-THROAT AT SANDRINGHAM.

IF a triangle is drawn, having a base stretching from King's Lynn to Walsingham, and the apex at Docking, it will include that portion of Norfolk mainly embraced by the three registration districts named after these respective places. The estate of Sandringham, the seat of the Prince of Wales, including about 7000 acres, and consisting of several parishes, occupies a portion of this area. It consists of a large portion of very wild, unreclaimed sporting land, and some rich meadow and pasture, and salt water marshes. Sore-throat of a diphtheritic character, from which the Princess and, we believe, members of the household have suffered, appears to have a natural home in this locality. For example, statistics gathered from the Registrar-General's returns show that the death-rate from diphtheria in the Docking and Walsingham districts bear the proportion of 17 and 22 to ·09 in the Norwich registration district and to ·04 in other districts of the same county. The death-rate from diphtheria in this portion of Norfolk is in excess of the death-rate from the same diseases in St. Giles', Shoreditch, Bethnal-green, Whitechapel, or St. George's-in-the-East, which are among the poorest and least sanitary districts of London. Yet here is the home of the Heir Apparent and his family, purchased by the advice of the Government at a cost of £220,000. We cannot suppose that in the house at Sandringham insanitary conditions have been permitted to prevail, for it was here the Prince was so seriously ill from typhoid, by which attention should have been forcibly directed to the sanitation of Royal residences. The Prince Consort lost his life at Windsor, though it is suspected he contracted the disease at Sandhurst. The Prince of Wales nearly lost his life at Sandringham, though it is not quite clear where and how he contracted the fever. The Duchess of Connaught's life was in danger in the newly-erected residence in Bagshot-park; and at last the Princess of Wales has been subjected to risks, and with her in all probability others of the family and the many distinguished visitors who have been at Sandringham since Christmas. Yet all this danger and inconvenience is removable by well-understood and simple methods. Any gentleman would regard it as a paramount duty to his family to select his home in a district where sanitary statistics were satisfactory, or he would set about at once to remedy the defects as far as practicable. We suspect the undrained marsh lands in this portion of Norfolk, as elsewhere, to be at the bottom of this diphtheritic tendency, and till they are drained diphtheria will prevail. The Prince of Wales can scarcely, with his many duties, be expected either to understand or attend to such matters, but his advisers should. Had the Princess died, what would have been the verdict of the people?

## INFECTIOUS HOSPITALS IN RURAL DISTRICTS.

DR. WOODFORDE'S annual report for 1884 on the combined sanitary districts of Berkshire reaches us at a date when public interest in the sanitary circumstances of the district for the period in question is necessarily to a great extent a matter of the past. One or two points of general interest are, however, raised in the report. In the Abingdon rural district Dr. Woodforde has had to consider the advisability or otherwise of providing a hospital for the isolation of cases of infectious disease, and he has felt that the practical difficulties which would have to be overcome are such that his advice has been that the spread of infection could be more effectually controlled by obtaining the assistance of thoroughly trained nurses to deal with all known cases of infection occurring in a given locality than by hospital provision. Besides a number of difficulties, such as the concealment of first attacks, which apply more or less to all districts in the United Kingdom where compulsory notification is not in force, the fact that scarlet fever is a disease which would largely have to be dealt with, and that the sufferers would in consequence be mostly young children, is adverted to. As to this we would point out that, according to the official report on Hospitals for Infectious Diseases, it was found that this drawback is more imaginary than real, and that out of a total of 4758 admissions at all ages into hospitals provided by sanitary authorities, no less than 2673, or 56 per cent., varied in age from a few months to ten years; and that in one rural district 81 per cent. (nearly all being scarlet fever cases) had been admitted at that age out of a total of 220 patients at all ages. One great difficulty as to the alternative system advocated is that the provision of nurses, except in hospitals, is not authorised under the Public Health Act. Another suggestion is, however, contained in the report—namely, the removal of the healthy members of a family to an empty cottage with a view to their being kept under supervision for a period equal to the incubation of the disease, and the retention of the infected

cottage as a temporary hospital for the first patient attacked, and for any that may follow. This provision of a temporary hospital would appear to be clearly within the powers of the authority, who would only have to secure the assent of the landlord and tenant to the proposal; but how the payment for the other cottage could be legally made we are by no means clear, and what the authority would do if the hitherto healthy people were to refuse to submit to the suggested "supervision," which rather savours of quarantine, we do not know. Doubtless, however, there are districts in which, under judicious management, much useful work in the direction of the isolation of infectious diseases can be done which may not come strictly within the letter of the law; but it is certain that these schemes cannot be regarded as universally applicable to sparsely populated and rural districts. The difficulty of providing special buildings as hospitals in such districts is, in some important respects, a real one; but there are many localities where the authorities would not object to erect the simple four-bedded hospital of which plans were last year issued by the Local Government Board, whereas they might with reason object to the provision of means of isolation on a larger or more expensive scale.

## ANTIPYRIN AND CALOMEL COMPARED IN PNEUMONIA.

THE *St. Petersburg Weekly Clinical Gazette* publishes some observations which have been made by Dr. Posadski, under the direction of Prof. S. P. Botkin, on the comparative results of the antipyrin and calomel treatments in croupous pneumonia. He thus treated a group of twenty-five cases with antipyrin alone, giving from half a gramme to two grammes (seven and a half to thirty grains) for a dose, and one to eight grammes (fifteen grains to two drachms) per diem. A second group of twenty-three cases, as similar as possible to those of the first group, was treated with calomel in doses of one-eighth of a grain four times a day. The average age of the patients in the first group was twenty-seven years and a half, and that of those in the second twenty-five years and a half. Those treated with antipyrin retained their full consciousness, but in the course of two or three days failed greatly in strength, the heart's action becoming exceedingly weak. They suffered from cough, and with difficulty expectorated a small quantity of slightly-tinged sputum. After the first few doses there was a fall in the temperature, but not of a permanent character; sometimes, indeed, there was no fall at all, and when there was, notwithstanding the continuance of the drug, a rise followed. The crisis took place with a fall of temperature on the average on the seventh day of the disease, the mean number of days of fever being 8·1, but the local physical signs lasted 13·5 days. Complications occurred in nearly all the cases, sometimes being of a serious nature, collapse even being noted. In the urine there was nearly always albumen in considerable quantity, also antipyrin. The fall in weight averaged 20·34 zolotniks (about twenty-seven ounces), which was less than the mean fall of the patients treated with calomel, but the latter recovered their weight more rapidly during convalescence. When the doses of antipyrin were frequent, vomiting was often induced, and in two cases an antipyrin rash made its appearance. Those treated with calomel frequently presented a typhoid condition, and in some cases there was delirium. They were not much distressed by cough, the sputum was expectorated easily and in considerable quantity, and they did not suffer from sweats. The temperature rose high. The mean duration of the fever before the critical fall was 7·1 days, which was generally accompanied by drenching perspiration. The local physical signs lasted on the average 9 days (against 13·5 in the other group). There was rarely albumen in the urine, and when it existed there were only traces. Complications were infrequent. The general conclusion arrived at was that antipyrin, in spite of its power of reducing fever, has no beneficial effect on the course or result of the disease.

## THE CERTIFICATION OF LUNATICS.

ATTENTION is again directed very painfully to the fact that there may be insuperable difficulty in legally certifying the unsoundness of mind of a person who is actually in peril of committing a deed of violence for which he or she will afterwards be held irresponsible on the ground of insanity. Beyond question this is a most anomalous state of matters, full of danger to the public, and yet it arises inevitably out of the most unsatisfactory state of the laws relating to the certification of lunatics. If only the power existed to place persons who are obviously—perhaps even self-consciously—on the borderland of insanity under protection and treatment, with their own consent, without branding them as lunatics, few of the distressing occurrences which now harass the public mind and too often involve the loss of life, as in a recent deplorable case now *sub judice*, would arise. It is unjustifiable to blame medical men for what an uncertifiable lunatic may do. Unless there be express evidence of insanity in act, or of the existence of some delusion, the form of certificate provided by the Acts in force cannot be filled up, and the issue must be left to the chapter of accidents. Coroners are far too ready to blame medical men when anything goes amiss. They seem to think somebody must be to blame, and practitioners of medicine are regarded as fair game. Against the undiscriminating condemnations thus heaped on the heads of members of the medical profession we protest. The existing state of the law affords an abundant explanation of the scandals which from time to time arise in connexion with the certification or non-certification of lunatics. Until the Legislature can find a convenient time for reform there will be no means of preventing these occurrences.

## WHAT CONSTITUTES A NUISANCE?

IT is certainly curious how certain localities and people cling to nuisances, however gross, on the ground that they have been long accustomed to them. In the Forfar Police-court proceedings were taken against an occupier for allowing a nuisance in close proximity to a draper's work-room where young women are employed, this nuisance being, it was contended, injurious to health. The alleged nuisance was in a court adjoining the workshop, the court measuring twelve feet in breadth. In this confined area, on to which a window of the draper's premises opened, were four pigs, a privy, and a lot of manure, and this although some four cartloads had already been removed. But plenty of people were found to declare that it was no nuisance at all, and one witness maintained this view as the result of twenty-five years' experience of it. Although we are fast getting rid of such abominations as the storing up of many tons of pig and other dung in courts, yet even down south we still meet with similar opinions. But they do not, as a rule, emanate from, and receive the support of, medical men, and we can only hope that the practitioner whose evidence is quoted in the *Forfar Herald* has been erroneously reported. He is alleged to have declared the state of affairs to be no real nuisance; indeed, whereas pigs are proverbially the producers of such foulness as to call for special bye-laws against such animals, he thinks that pigs keep down the smell because they trample down the manure, and he is of opinion that "six loads" of such stuff can be kept in the

court without injury to health. It was also shown that a drain on the draper's premises might have contributed to the nuisance. Judgment was reserved when the account reached us. We trust it will not be based on such retrograde views as we have referred to, and we commend to the sanitary authority the bye-laws issued by the English Local Government Board as to the prevention of nuisances from the keeping of animals as annotated by Messrs. Knight and Co.

## EMBOLISM AND CHOREA.

IN the first number of THE LANCET of the present year we published an article on the relations of Embolism and Chorea, by Dr. Howship Dickinson. Anyone who is conversant with the literature of chorea—using the term in its widest sense, as including every phenomenon that has ever received the name, and their number is legion—will grant without hesitation that there never was a problem that presented more diversity of aspect, more change of opinion, and less likelihood of arriving at a satisfactory solution. Mr. A. H. Benson has reported in the current number of the *Ophthalmic Review* a case of partial embolism of the inferior division of the central artery of the retina associated with repeated previous attacks of chorea. The patient was a man, aged twenty-one, who had had rheumatic fever in 1881, chorea in 1882, again in 1883, and once again in 1884. The retinal embolism was, however, unaccompanied by symptoms in other parts of the nervous system. Mr. Swanzy in 1875 recorded the case of a girl, aged ten, who developed chorea, and at the same time facial paralysis and embolism of the left central retinal artery. In neither of these cases was there any evidence of heart disease. The occurrence of such associated phenomena lends considerable countenance to the embolic theory of "chorea," but cannot be regarded as conveying anything in the nature of proof.

## THE DENTISTS IRATE.

THE organs of dentistry are again very angry with us because we have dared to say anything about the teeth. They feel much hurt with the remarks we recently made about Hunter's views of decay of the teeth, and our reference incidentally concerning his opinion as to the legitimate line of demarcation between general surgery and dentistry. We can assure the specialty that we had not the slightest intention of wounding their feelings or of trenching on the province they have so cleverly monopolised. Our observations were entirely made for the medical profession; and so solicitous were we to avoid the use of irritating language that, in quoting John Hunter, we made a garbled quotation, omitting the words, "The diseases which may arise in consequence of those of the teeth are various, such as abscesses, carious bones, &c., many of which, although proceeding originally from the teeth, are more the object of the surgeon than of the dentist, who will find himself as much at a loss in such cases as if the abscess or carious bone were in the leg, or any distant part. All the diseases of the teeth, which are common to them with the other parts of the body, should be put under the management of the physician or surgeon; but those which are peculiar to the teeth and their connections belong properly to the dentist." In point of fact, our claim was a smaller one than Hunter's; and we thought of being complimented for our modesty, instead of being rated for the mingled audacity and ignorance of our proposals. Let this pass. It is further objected that we could not have read Hunter's work because when stating his view of the nature and causes of decay we said, "It is not due to external or accidental causes." As a matter of fact we had read Hunter's work, and moreover it lay before us when we wrote. His precise words are these: "It does not arise from any external injury, or from menstrua which have a power of dissolving part of a tooth, for anything of that kind could not act so partially; and we can observe in those teeth where the disease has not gone deep that from the black speck externally there is a gradual decay or alteration leading into the cavity, and being fainter and fainter. We may therefore reasonably suppose that it is a disease arising originally in the tooth itself," &c. In the reference we ventured to make to the subject of "acids," we spoke of ordinary acid foods and beverages, not of acid medicines. In regard to the latter we quite agree with our dental contemporaries. We had not the least notion of asserting the finality of Hunter's opinions, still less of setting them up as against the opinions of more recent authorities. Our sole object was to direct the attention of members of the medical profession, as distinguished from dentists, to the fact that decay of the teeth is a matter which ought to be studied from the medical standpoint. In the treatise from which we quote Hunter was very careful to observe what he believed to be the limits of the specialty of dentistry. Thus in writing for dentists he said, "I shall purposely avoid entering into common surgery; not to lead the dentist beyond his depth, or to matters of which it is to be supposed he has not acquired a competent knowledge." Our remarks were, as we have said, for physicians and surgeons, not dentists.

## SYPHILIS, ACQUIRED AND INHERITED.

THE Lettsomian Lectures on "Some Moot Points in the Natural History of Syphilis," delivered at the Medical Society by Mr. Hutchinson, raise questions of great social importance. The acceptance as an established fact that apparently pure vaccine lymph from an infant inheriting syphilis can communicate syphilis to a non-syphilitic individual through vaccination naturally gives rise to some very grave problems. If, as Mr. Hutchinson contends, secondary symptoms may follow chancroid ulceration as well as true chancre, and further that it is impossible to say that an apparently simple gonorrhœa may not have a syphilitic urethral ulceration blended with it, then the area of the natural history of syphilis becomes very much extended. The primary sore, whether chancroid or true chancre, is as a rule subjected to specific treatment, and the liability to secondary constitutional mischief is reduced to a minimum. But it is quite different with syphilitic urethral ulceration blended with gonorrhœa. This is subjected to the ordinary treatment of gonorrhœa, and the syphilitic nature is only suspected when in due course secondary symptoms present themselves. This would appear to call for a very minute examination of every case of gonorrhœa, with a view to determine its syphilitic or non-syphilitic character. Other points of equal interest arise out of Mr. Hutchinson's lectures. It is beyond a doubt that the offspring of a syphilitic parent may be free from all apparent syphilitic inheritance, and, on the other hand, the offspring may present features of a syphilitic taint inherited from a parent in whom all symptoms of the syphilitic taint are in abeyance. When, then, is sanction to marry justifiable in the case of one who has suffered and apparently recovered from syphilis? It is within the experience of most medical men to have seen cases of newly married couples in which the wife as soon as she becomes pregnant presents unmistakable signs of secondary symptoms. The husband, however, may have been unsuspicious of having a syphilitic taint. Many of the skin eruptions of married women have their origin in this taint, unconsciously acquired and unconsciously communicated. Many a puny child owes the blight in its nature to an inherited taint. The disposition to sore throat at every little fluctuation in health is often an indication of this taint. The question how best to reduce

these evils to a minimum has not yet been fully answered. One point especially has never been adequately explained—that is, why the syphilitic taint, whether acquired or inherited, should have such a predilection for the skin, mucous membrane, and especially the throat,—for the latter is as reliable an index of the disease as the barometer is of the weather. The non-mercurial treatment has been fairly tried and found wanting in cases of true syphilitic infection. Mercury in small doses continued over a long period of time, supplemented by the local application of the same remedy, and followed by an equally lengthened course of potassium iodide, beginning with ordinary doses and gradually increasing to half-drachm doses two or even three times a day, will subjugate the virus more than will any other remedies. But these may need repeating on the least re-development of symptoms, whether these be in the form of the graver internal complications, or skin eruption, ulceration of mucous membrane, or sore-throat.

## THE VENTILATION OF SEWERS.

THE grievously vexed question of sewer ventilation is again pressing for an answer. There never will or can, we are convinced, be a final settlement of this issue until the absurd theories and devices of those who confound the behaviour of gas and vapour with that of water, and whose judgment is vitiated by other fallacies, have been utterly cast aside and abandoned. The particularly ridiculous notion that sewers can be ventilated by an arrangement which amounts to the construction of an inverted syphon—the pure air to be drawn at the mouth of a low-level pipe, and the foul air ejected at the open mouth of a high-level pipe—is probably one of the most mischievous and obstructive of prevailing misconceptions. As a matter of fact, there is only *one* way of effectually ventilating close drains and sewers, and that happily is an easy one. Pipes, which ought to be not less than four inches in diameter, as perpendicular as possible, and protected by a cowl at the summit, should be carried up from the drain or sewer to a point well above the level of the roofs of adjacent houses, and placed far away from chimneys. By means of these pipes the sewers may be properly ventilated. Much may be accomplished by any householder who has the spirit to place two or more ventilating-pipes of the construction indicated on his own premises. Sooner or later low-level or "surface" ventilators will be prohibited. We believe that to the agency of such apparatus, as disseminators of sewer gas, is to be ascribed much of the sickness which prevails in many localities. The effluvia rising from too many of these surface-gratings and low-level ventilating-pipes afford conclusive evidence of their dangerous character.

## MITRAL DISEASE.

THE perennial interest that hangs around the study of diseases of the valves of the heart is strong testimony of the lack of definite knowledge concerning the physical signs of valvular lesions. Two papers in the first number of the *International Journal of the Medical Sciences*, which is also the 181st number of the new series of the renowned American journal, continue the interest and develop new phases in the study of mitral lesions. Dr. Austin Flint treats of mitral cardiac murmurs, but Dr. Broadbent is concerned only with mitral stenosis. There are four mitral murmurs according to the American author: (1) The systolic regurgitant; (2) the systolic intraventricular not due to regurgitation; (3) the presystolic; (4) the diastolic. Each of these four murmurs has distinctive characters; there may be a combination of any number of them. Hayden's nomenclature of post-diastolic and post-systolic appears to Dr. Flint an unnecessary refinement: in this view, regarded clinically, we are disposed to agree, but think that the refinement is not excessive when viewed in the light of differentiation, as an aid to the promotion of a scientific knowledge of murmurs. Dr. Broadbent considers that mitral stenosis is on many grounds the most interesting valvular affection of the heart. Its frequency and dangerousness—being second in peril only to aortic incompetence, and indeed the more serious of the two in early life—impart to it a very practical interest. The circumstance that it presents far greater difficulties in diagnosis than any other disease of the valves has been the chief reason for Dr. Broadbent's paper. It was the last of the valvular lesions to be associated with distinctive physical signs, and even now its existence is entirely overlooked by physicians, and it is not unfrequently confounded with the less serious form of mitral disease. The difficulty is largely to be accounted for by the fact that the physical signs are extremely varied, sometimes requiring careful prolonged examination by a skilled ear before a diagnosis can be made, and at other times so marked that the youngest student may diagnose with certainty. An attempt to elucidate the significance and appraise the diagnostic and prognostic importance of the physical signs is the chief object of the paper.

## THE NEUROLOGICAL SOCIETY OF LONDON.

WE have to announce the birth of a new association—the Neurological Society of London. Informal meetings have been held, and a committee appointed to frame a constitution. A recent meeting has sanctioned the laws thus framed; and a council has been elected, with Dr. Hughlings Jackson as president, and Dr. S. Wilks and Sir J. Crichton Browne as vice-presidents. Dr. Bristowe is to be the treasurer. Drs. Bastian, Broadbent, Bucknill, Buzzard, Ferrier, and Savage, and Messrs. Galton, Hutchinson, Romanes, and Professor Schäfer are also members of council. Dr. Hughes Bennett and Dr. de Watteville are acting as hon. secretaries. The scope of the Society is of the widest, including not only the physiology and pathology of the nervous system, but also that section of neurology which is concerned with psychology, both normal and morbid. The Society chiefly owes its existence to the enthusiasm of the acting editor of *Brain*, Dr. de Watteville.

## THE THREE TOWNS' MEDICAL INSTITUTION.

A GOOD deal of correspondence between the medical officer of this institution and the executive has appeared in the local papers, and the general result is to confirm our oft-expressed opinion that these institutions aim at getting out of their medical officer a very unreasonable amount of work for a very disproportionate payment. It shows, moreover, that the unfortunate medical man is expected to do horses' work. Dr. Keily says in one letter that he had sometimes to pay twenty visits a day to infectious cases. With so many cases, such long distances, and a day of only twenty-four hours, a cab was indispensable; but this was begrudged, save for one hour a day; and he was asked, in addition to his abundant work, to supply the committee with a few interesting statistics—such as a list of home patients, the time given to each, how long the hansom was at the door, and the cost of each prescription. Fancy a medical man, with a district nearly twenty miles in circumference, with twenty infectious cases a day to visit, temperatures to take, and all his other patients to see, being thought of as having infinite leisure, with time to construct statistics like the above. Dr. Keily properly declined to give such statistics unless he was supplied with a secretary and when asked what he would take as a substitute for cab

fare said £100 a year. Moreover, he wisely threw upon the committee the whole responsibility of refusing proper allowances for cabs, and ceased to see a number of the permanent or distant cases. It is significant to see such men renounce these appointments, and expose the shabbiness and unreasonableness of the societies that expect so much from and give such pittances to their medical officers. After Dr. Maunsell's experience at Bath and Dr. Keily's at Plymouth, gentlemen taking these appointments will deserve no sympathy from the profession. The new rules are more ungenerous than the old ones; they involve, too, the undertaking on the part of a medical officer not to go to law, and to submit every grievance to the Committee of Management, and as a last appeal to the General Committee.

## UNUNITED FRACTURE OF CLAVICLE.

THE case that formed the subject of a communication to the last meeting of the Clinical Society by Mr. A. E. Barker possessed considerable interest from many points of view. As Mr. R. J. Godlee and the author pointed out, the presence of an ununited fracture early in life generally carried with it the impression that there existed some vice of the constitution rendering normal processes of osteal repair impossible of occurrence. Mr. Barker is therefore to be congratulated on the successful issue of his operative procedures. The case in question was, however, not solely interesting from the surgical point of view, but practically successful in the mending of the clavicle as well as in the relief of certain nervous and muscular symptoms, which constituted a source of annoyance and disability to the remarkably intelligent boy. Dr. Poore supplied the detail of the medical facts: tenderness of the trunks of the brachial plexus; diminished faradaic irritability of that important muscle of manual prehension and precision, the right first dorsal interosseous; want of development of the pectoralis major on the affected side; slight mottling of the skin and grooving of the thumb-nail, with diminished rate of growth of the finger-nails. From personal examination Dr. Poore was able to testify to the disappearance of all these morbid phenomena. A conspicuous symptom, however, that probably determined the application for relief, was the inability on the part of the boy to continue writing for more than a few minutes. At the end of ten minutes the manuscript was altogether illegible, and the difficulty with which any strokes of the pen were made was great and painful. The symptoms, so far as the writing was concerned, had a kind of resemblance to those of "writer's cramp," though the difference between the genuine disease and this imitation was sufficiently obvious, justly calling forth the remarks of Dr. Poore and Dr. Hughes Bennett. The last point that remains to be related is the absolute recovery of the power of writing—a desired result that ensued so distinctly on the operation that surgery may justly claim another success in diseases of the nerves.

## TOXIC ACTION PROPORTIONAL TO ATOMIC WEIGHT.

THE salts of the rare metal rubidium act as heart poisons like those of potassium and lithium; and Richet, who has examined the action of these substances on both warm- and cold-blooded animals, finds that these metals are poisonous in almost exactly the inverse ratio of their atomic weights (lithium 7, potassium 39, rubidium 85), so that the minimum lethal dose of rubidium is about a twelfth of that of lithium, that of potassium being intermediate between these. It appears, therefore, that the toxic action is really a chemical one, the chlorides of the metals acting by displacing, molecule for molecule, the chloride of sodium in the tissues.

## THE LAW RELATING TO VACCINATION.

AN important question under the Vaccination Acts has been raised in a case in which counsel on behalf of Lord Clifton moved for a *certiorari* to remove into the Court of Queen's Bench an order made by magistrates in the Isle of Thanet in respect of Richard Fox, Lord Clifton's valet, that his child should be vaccinated. The Court having granted a rule *nisi*, the case will doubtless come on for discussion. It appears that the valet had an unvaccinated child, and that he objected to its being vaccinated with humanised lymph; and the child remaining unvaccinated, the man was summoned, and Lord Clifton arranged either to appear himself on behalf of the valet, or to engage the services of a solicitor. But being absent in connexion with electioneering duties, he asked the magistrates to adjourn the case; the request was, however, not complied with, and an order was made directing the child to be vaccinated. The clause under which the order was made is Section 31 of the Vaccination Act, 1867, which enables a magistrate to order the appearance of the defaulting parent or person with the child before him, and "upon the appearance" he may, if he deem fit, make an order as to the vaccination of the child. In this case the parent failed to appear either with or without the child, either in person or by any legal representative, and it is contended that the order was, in consequence, invalid. It has already been decided in the case of Dutton *v.* Atkins, 6 Law Reports, Q.B., 377, that the appearance of the child is 'not an absolute necessity, provided the magistrates are able to judge that it remains unvaccinated; but the question as to whether the order can be issued in the absence of the parent has, as yet, never been decided. The parent may appear by any member of his family, or any other person authorised by him in this behalf, but apparently his non-appearance can only be dealt with under Jervis's Act, 11 and 12 Vict., cap. 42, sec. 2.

## INJECTIONS INTO THE LUNGS.

A DISCUSSION has recently taken place in the Medical Society of the Paris Hospitals, chiefly between M. Gougenheim and M. Dieulafoy, on the advantage of practising antiseptic injections into the tissues of the lungs in cases of phthisis. M. Gougenheim had injected bichloride of mercury in thirty-three cases of advanced phthisis with considerable amelioration, the loss of flesh being retarded and the râles as also the expectoration diminished. M. Dieulafoy, on the other hand, had in 1881 practised injections of glycerine of carbolic acid, colouring this with cochineal, by which means he was able to assure himself by inspection of the sputa that the antiseptic had entered a cavity. He found, however, that the patients suffered great pain from the injections, and that no beneficial effects followed, so that he soon abandoned this treatment.

## THE DRAINAGE OF DWELLING-HOUSES.

THE Plumbers' Company are taking a step in the right direction. For some reason or other, justly or unjustly, the plumber has for years been the pet aversion of the householder and the favourite butt for the wit of those who delight in holding up "the British working man" to ridicule. On the 24th inst. a special court of the Company was held to confer with a meeting of the plumbing trade of London, with respect to certain resolutions which had been passed to give practical effect to the decisions of a conference of metropolitan and provincial plumbers and to secure the greater efficiency of plumbing and draining work in connexion with dwelling-houses. These resolutions provide for a system of registration, the register to be open to the admission of those who give evidence of their present status and experience in the trade—to those who pass a qualifying

examination, or to those who produce certificates of competency. A plumber who is doing dishonest or unskilful work is doing an evil to the public, and a thorough system of registration will go a long way towards the removal from the trade of those who now disgrace it. At present there is in this country no requirement of evidence of qualification—a state of things which we believe is not tolerated in any other trade or profession which involves the security of the health and life of the public. A council composed of distinguished sanitarians, members of Parliament, medical officers of health, and members of some of the chief municipal bodies, has been formed to carry out the object which the promoters of the scheme have in view, and it is to be hoped that their efforts towards the attainment of a result so pregnant with good may be attended with success.

## INTRA-UTERINE BRAIN DISEASE.

CASES of micro-cephalus are of frequent occurrence, and this clinical sign, together with want of intellectual development, are together or alone the chief features of most congenital diseases of the brain. The size of the head appears to be a more or less accidental circumstance, and certainly gives but little clue to the anatomical condition of the concealed brain. From the material that has already been collected, it would appear that the morbid anatomy of congenital brain disease is far more varied than the clinical pictures of such cases. It is true that motor symptoms are frequent accompaniments of mental defect in such cases, but the number of symptoms is small, from the circumstance that there has been an actual want of development of normal functions. In congenital brain disease the chief feature is sometimes atrophy, more especially of the motor convolutions; this forms one variety of porencephaly. At other times we have to do chiefly with sclerotic conditions. Tumours and cysts have also constituted the anatomy of some cases. As a contribution to the pathology of sclerotic conditions of the brain, the cases narrated by Dr. Ashby and Dr. T. Barlow at the last meeting of the Pathological Society are of much interest and importance. Congenital syphilis is probably responsible, for many cases of intra-uterine cerebral sclerosis and syphilis may act in the ordinary way by producing patches of fibroid induration, or by causing characteristic changes in the vessels, with consequent atrophy and sclerosis. Dr. Barlow also considered that meningitis, however produced, may lead to sclerosis of the cerebral tissues. The subject is one which urgently requires more extensive post-mortem experience, and it is a field in which there is much room for original investigation.

## THE "JAW-JERK."

UNDER this name, compounded of familiar terms, Dr. de Watteville describes in the current number of *Brain* a phenomenon analogous to the "knee-jerk" or patellar tendon reflex. As the extensor muscle of the leg when suddenly stretched contracts by a sharp tap on the tendon, so the masseter and other muscles of mastication contract when similarly excited by an extensile impulse. The latter is best imparted by applying a flat object, such as the handle of an ivory paper-knife, on the teeth on either side of the jaw, and using an ordinary percussion hammer to strike the required blow. The jaw should not be fixed by any voluntary muscular contraction, and the blow should be struck as near the teeth as possible. The short period of latency of the jaw-jerk, ·02 of a second, is held to be another argument against the reflex nature of the tendon reaction. The jaw-jerk is exaggerated in many cases of disease, and may even pass into a regular clonus. The latter phenomenon was observed five years ago by Dr. Beevor in a case of amyotrophic lateral sclerosis, published in the current number of *Brain*. Dr. de Watteville mentions a case of hysterical spasms in which the jaw-clonus was present. Further experience alone can show what variations in the jaw-jerk are compatible with health, and determine what diagnostic value its exaggeration and abolition may possess.

## A TERRIBLE OPERATION.

IN a recent number of one of the leading medical serials of continental Europe, several pages are devoted to the description of a truly terrible operation. The patient, a middle-aged woman, of strong constitution, had suffered from mammary cancer for upwards of fifteen years. The disease, slow at first, had lately made rapid progress to induration and ulceration. The axillary cavity was obliterated, and the largely swollen arm could not be abducted. The patient being thoroughly anæsthetised, and all antiseptic precautions taken, the operator divided the clavicle at the junction of its inner and middle third. Raising the acromial end, and dividing the subjacent structures, hard sclerotic tissue was found surrounding the subclavian vessels. The artery and vein were tied separately near the scaleni, after separating with much difficulty the lymphatic glands infiltrated with carcinomatous tissue which was continuous with the hardened ulceration in the chest and strongly adherent to the rib. This procedure occupied an hour, and it was followed by amputation of the arm and excision of the scapula and of considerable portions of the second, third, and fourth ribs. The patient was still alive, but pale and with a thready pulse; yet, wonderful to relate, death did not occur until four hours later. We are assured that the procedure was sanctioned by a formal consultation of surgeons, and the operator closes his description with the hope that his example may be followed under more favourable circumstances. But on what grounds, anatomical or clinical, is there reason for believing that such a terrible mutilation can have any other result than the patient's speedy death? Our motives in suppressing names and place will doubtless be correctly interpreted by our readers, who must accept our abstract as an authentic record of proceedings in the chief hospital of one of the principal European cities in 1885!

## INFLUENCE OF HOT DRINKS ON DIGESTION.

VARIOUS opinions are held by the public, and we believe by medical men also, on the effect of hot drinks on the digestion of food. This matter has lately been investigated by Dr. V. E. Nyeshel of St. Petersburg. The plan he adopted was to make use of twenty patients in the surgical wards of the Obukhoff Hospital suffering from fracture of the fibula, contusion of the foot, and such-like affections, and dividing them into two sets of ten each, to find out first by a three days' experiment the length of time an ordinary meal of soup, meat, potatoes, and black bread required for digestion. For this purpose the stomach-tube was employed at periods varying from five to seven hours and a half after the meal, and the condition of the contents of the stomach examined. In all the cases complete breaking down appeared to have taken place in about six hours and a half. The exact time required by each individual for the digestion of the specified meal being noted, further observations were made on a subsequent day, the patients in the first group being given after the meal hot tea at a temperature of from 40° to 75° C., the quantity taken varying from two to eight tumblerfuls. The contents of the stomach were drawn off at the time when, as former experiments had shown, digestion would under ordinary conditions have been complete. The result was that, when not more than three tumblerfuls of hot tea had been swallowed, it was found that digestion had pro-

gressed just as well as without it, but a larger quantity of hot tea appeared distinctly to retard the digestive process. The second group of patients were given a meal similar to what they had had before, but hot. On examining the contents of their stomachs no difference could be detected between the rate of digestion of hot and cold food. The author found that by painting the pharynx with a 5 per cent. solution of hydrochlorate of cocaine the tube passed easily and quickly.

## DISEASE OF THE MEDULLA OBLONGATA AND HEMIANÆSTHESIA.

M. VULPIAN made an important communication to the Académie des Sciences on the 11th inst. on the subject of hemianæsthesia. Following up a former note on the subject in which he had pointed out the connexion between this affection and bulbar lesions, he detailed a case where the right side of the bulb had been diseased and in which there had been cross-anæsthesia—the right side of the face and the left limbs. Experiment had given results of a similar character. He had performed unilateral section of the bulb in animals, and thus produced experimentally a hemianæsthetic condition exactly corresponding with that existing in the case above mentioned. The explanation is to be found in the anatomical disposition of the nervous fibres of the medulla, where the sensitive root of the trigeminus of the same side is in juxtaposition with the encephalic fibres which cross at the same level.

## "A MEDICAL MAN"—QUERY.

SOME of our contemporaries, who would not willingly tarnish the fair name of the medical profession, occasionally do so inadvertently in their police reports. Cases not infrequently are reported in the daily papers in which a person charged is described as "a medical man," "physician," &c. In these cases a reference to the Medical Register generally fails to corroborate the inference that they are legally qualified members of our profession. We do not hesitate to admit that now and again, even within the bounds of the Register, a "black sheep" does appear. But that is no reason why anybody who pleases should call himself "a medical man," and have his claim allowed. We would point out that copies of the Medical Register are annually distributed to the Law Courts, in order that, amongst other things, such mistakes may not be made.

## TRAMWAY AND 'BUS MEN.

IT seems strange, in this age of "short hours" and "early closing" movements, that a resolution should need to be moved to the effect "That the directors (of a tramway company) be requested to reduce the hours of work for drivers and conductors from sixteen hours to fourteen, giving every other Sunday off duty." Except railway, tramway, and 'bus servants, probably no members of the so-called labouring classes in the country work more than twelve hours out of the twenty-four. The most urgent reasons for a change in this particular are set forth clearly enough in "The Story of Our Tram-car Men"—a pamphlet which we commend to the attention of all who are interested.

## RHODOMYCES.

RHODOMYCES, according to Dr. Wettstein, is a fungus closely allied to oïdium albicans, but differs in the appearance of the conidiophores, the modes of formation of the conidia, and especially in its unseptated hyphal branches. The fungus was found in the fluids ejected by patients suffering from pyrosis. It presents itself as a dense, delicate, pink growth, containing enormous numbers of conidia.

## MANGANESE IN PLANTS.

"DETERMINE the place and mode of action of manganese in the vital processes of protoplasm." When may such an imperative proposition be asked the student with any probability of obtaining an answer? An interesting paper by Professor Flückiger in the *Pharmaceutical Journal* (p. 621) opens by asserting the wide extension, though limited amount, of manganese in the vegetable world. Certain plants are said to have the power of absorbing the metal, others are unable to assimilate it. Much more striking facts of a similar order may be noticed with regard to iodine. Flückiger showed in 1872 that the plants of the natural order Zingiberaceæ are remarkable for the manganese that every part of most of the plants contains. Trapa natans, especially its fruit, is rich in manganese, although it grows in swamps that contain only an extremely small amount of that metal. There are two species of Trapa in the East, playing a most important part in the food of the Indian and Chinese population. Herr Lofander succeeded at Flückiger's laboratory in demonstrating the presence of manganese in the ash of the fruits of Trapa bicornis. According to some authorities, Trapa natans appears to be dying out, but this would appear on Täggi's belief to be a correlative of the disappearance of swamps, which is the natural habitat of the "water-nut." Trapa bispinosa, indigenous in Bengal and the Peninsula, in the Punjaub as well as in Cashmere, yields enormous quantities of a most valuable contribution to the provisions of the people of India, where as Drury says in his "Useful Plants of India," the plant is largely cultivated.

## SUPRAPUBIC LITHOTOMY.

M. POLAILLON recently showed at the Société de Chirurgie the urinary organs of a calculous patient upon whom he had unsuccessfully attempted suprapubic lithotomy. The bladder was distended by an injection of 150 grammes of fluid, and the rectum was distended in the usual manner; but in spite of these steps M. Polaillon found, when he made his incision through the linea alba, that the peritoneum extended over the bladder quite down to the pubes. He verified this by making an incision into the serous sac, through which he introduced his finger and exactly traced the reflection of the peritoneum. He therefore sewed up the wound and abandoned the operation. The wound healed, and several months later the patient died of pyelonephritis. At the necropsy the bladder was found to be hypertrophied and contracted, fitting closely around a stone measuring in circumference four centimetres by two. The peritoneum passed quite down to the pubes. The ureters were much dilated even to their orifice into the bladder, and M. Polaillon suggests that the fluid thrown into the bladder passed into the ureters and distended them instead of the bladder, that the rectal dilator passed in above the bladder, and that thus both these means failed to raise the bladder. However, without an actual demonstration of the truth of these views—and this was not made a the post-mortem—we are not forced to accept them as the explanation of the failure of the operation.

## DISCHARGE OF AN OVARIAN CYST PER RECTUM.

SOME months ago the *New York Medical Record* contained an account of a case in the practice of Dr. H. W. Carpenter of Oneida, N.Y., in which a patient had been tapped of thirty-five quarts of fluid, albuminous to the extent of 75 per cent., in an ovarian cyst. She was then in extreme distress from distension and peritonitis, and hopeless of life. "She rallied well from the operation," says Dr Carpenter, "and in about six weeks there was per-

foration of the colon, as near as could be ascertained, at the sigmoid flexure, and the fluid which had slowly accumulated in the sac was discharged *per rectum*, and on May 15th *the entire sac passed off*." The patient soon began to improve in strength and flesh, and was able to ride five or six miles without fatigue, and, with the exception of slight pain in the right iliac region, she felt quite well. This is a remarkable case. It would be interesting to have two or three questions answered. Did the sac come away per anum? was its pedicle or attachment divided? was it a single sac or cyst? and what were its size and weight?

## EBERTH'S BACILLUS IN EMPYEMA.

AN observation which may be mentioned, as it concerns an interesting subject, has been placed on record by M. de Gennes in *La France Médicale*. The glass slips smeared with pus from a case of purulent pleurisy resulting from typhoid fever were stained in methyl blue and methyl violet. Microscopical examination revealed the presence of numerous micrococci, diplococci and bacilli. The last mentioned were elongated ellipsoidal rods, having a clear centre, but deeply stained at each extremity, in every way corresponding to the bacillus described by Eberth and Artaud as characteristic of enteric fever. M. de Gennes opines that the micrococci were the cause of the purulent pleurisy, but the bacilli he regards as the irrefutable witnesses of the enteric origin of the broncho-pneumonia that accompanied the pleurisy.

FROM the report of the examination made by Colonel Sir Francis Bolton of the water supplied by the several metropolitan water companies during the month of December, 1885, it appears that the Thames water distributed by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies again contained, in consequence of the flooded state of the river, a much larger proportion of organic matter than, until November, had been present in it for many months past. The water drawn from the Lea showed little change from that distributed from the same source in the previous month. All the samples were clear and bright on delivery. The number of micro-organisms found by the gelatine method in one cubic centimetre of the various waters were as follows:—Chelsea, 9; West Middlesex, 15; New River, 18; Southwark, 73; Lambeth, 124; Grand Junction, 134; East London, 317; River Lea (unfiltered), 2831; River Thames (unfiltered), 4650.

ON the 26th inst. the costly and nearly new office furniture and effects of the Lower Thames Valley Main Sewerage Board were sold by auction at Kingston-on-Thames, consequent on the dissolution of that ill-fated authority. The joint board being practially now at an end, several of the late constituent authorities, including the Richmond Select Vestry, the Heston and Isleworth Local Board, and the Kingston Corporation, have now taken independent action with regard to the drainage of their several districts, and have already adopted schemes which it is hoped will be accepted by the Local Government Board.

THE death has been announced of Deputy Surgeon-General M'Nab, M.D. Glas., who retired from the army in October, 1875, after a service of twenty-five years. He assisted in the suppression of the Indian Mutiny, and was present with the 64th Regiment in the operations at Cawnpore under General Windham, in the defeat of the Gwalior mutineers on the 6th of December, 1857, the action at Khalee Nuddee, and the occupation of Futteghur, receiving the Mutiny Medal for his services.

A CATALOGUE of the Library of the Faculty of Physicians and Surgeons of Glasgow has recently been issued. It is in the form of an alphabetical list of authors, accompanied by an index of subjects in alphabetical order, the authors under each subject being arranged chronologically. This is the plan on which the catalogue of the library of the Royal Medical and Chirurgical Society of London has been compiled, and it possesses many advantages. Mr. Duncan, the librarian of the Faculty, to whom credit for the work is due, is to be congratulated on the successful and satisfactory result which has crowned his labours.

AT a meeting of the City Commission of Sewers on the 26th inst., Dr. Saunders, the medical officer of health, reported that the death-rate during the past five weeks was at the rate of 5·05 per 1000 per annum, the lowest ever recorded in the City, and marvellously small considering the resident population and the fact that over three-quarters of a million of people frequent it daily. As showing the extreme fickleness, however, of the rate in the city, it may be mentioned that at the corresponding week last year it was 27·29 per 1000.

ON the arrival of the troopship *Serapis* at Portsmouth on the 22nd inst. from Bombay, it was announced that five days after leaving India, Staff-Surgeon M'Carthy died suddenly from fatty degeneration of the heart, and was buried at sea with military honours. The deceased had served in the ship for three years, and was forty-eight years of age.

AT the monthly meeting on the 25th inst. of the Board of Management of the Manchester Royal Infirmary, Dispensary, and Lunatic Asylum, a resolution congratulating Sir Wm. Roberts on the honour which has recently been conferred upon him was carried unanimously.

OWING to the recent introduction of small-pox into Cardiff by two seamen from a vessel arriving from Antwerp, it has been decided by the local authorities to apply for an inspector from the Local Government Board to visit the town.

THE strain of attention involved in the struggle between Zukertort and Steinitz, at the chess tournament in New York, is stated to be evidenced by the existence of insomnia in both combatants.

SIR HENRY ACLAND is, we learn, about to proceed to the Mediterranean, to seek, in two months' rest and change, the means of recruiting his somewhat enfeebled health.

MR. TEALE, of Leeds, will deliver a discourse at the Royal Institution on Friday, February 5th, at 9 o'clock, on the Principles of Domestic Fire-place Construction.

MR. J. BLAND SUTTON, Sir Erasmus Wilson Lecturer for the current year, has been appointed Assistant-Surgeon to Middlesex Hospital.

ANTHROPOLOGICAL MUSEUM.—A project has been started in Berlin to establish there an anthropological museum, which will do with regard to the races of men what zoological gardens do with regard to animals. In the exhibition, or garden, it is intended that representatives of various races shall permanently reside; while of such races as cannot stand the cold of the climate, representatives will be brought to Germany to reside there during the summer. An ethnological museum is to be established in connexion with the exhibition, which is said to have the support of several capitalists.

# Pharmacology and Therapeutics.

### AGARICIN IN THE NIGHT SWEATS OF PHTHISIS.

THE action of agaricin in arresting or modifying the sweats of phthisis was known to De Haen as early as 1767. It has since been employed by various observers for this purpose—Barbut, Andral, Trousseau, and Peter in France; Seifert, Proebsting, Pribram, Piering, and Senator in Germany; and Wolfenden, Murrell, and Young in Great Britain,—with more or less success. A series of observations has recently been published by Dr. Vitali Miller, of St. Petersburg, on seventeen cases of phthisis in which night-sweats were a prominent feature. In the majority of cases doses of from one-twelfth to one grain (a Russian grain is equal to ·996 of an English grain) produced a decided diminution in the sweats, in some cases arresting them entirely. Generally there were no concomitant unpleasant symptoms; but in a few instances some disturbance of the primæ viæ was set up, tending to justify the dictum of the old physicians, "Cutis laxa, alvus sicca; cutis sicca, alvus laxa." There were, however, cases in which even two-grain doses failed to produce any impression on the perspiration. Of the seventeen cases observed, a more or less decided diminution of the sweats was produced in twelve, while in the remaining five little or no effect could be detected. In one of these five, two-grain doses produced absolutely no effect. In another, although the first two doses produced arrest of the sweating, the succeeding five doses, which were larger, were followed by no diminution. In another case, in which agaricin was given for ten nights, complete arrest occurred twice and diminution three times, but on the remaining five nights no effect at all was observed. In another case, where the drug was given for four nights, there was arrest one night, an increase the next night, and very profuse sweats on the subsequent two nights. In another case there was only a very slight diminution produced. With regard to the twelve cases in which more satisfactory results were obtained, the following figures give the number of nights in which sweating, in each case in regular order, was diminished—6, 2, 0, 4, 5, 4, 6, 3, 1, 1, 3, 3. The nights in which the sweats were arrested were—0, 2, 4, 3, 5, 2, 4, 7, 3, 4, 3, 5; and those in which there was no diminution—4, 0, 3, 2, 3, 0, 1, 2, 3, 2, 1, 0.

### TOBACCO.

The trustees of the Fiske Fund at their last annual meeting announced that they had awarded the prize to an essay on the "Physiological and Pathological Effects of the Use of Tobacco" bearing the motto "Quid nimium probat, nihil probat." The author was found to be Dr. H. A. Hare, of Philadelphia. The conclusions at which the author has arrived are thus summed up:—Tobacco-smoking does not decrease the urine eliminated, but rather increases it; tobacco does retard tissue waste; tobacco and its alkaloid cause convulsions in the primary stage of the poisoning by depressing the reflex inhibitory centres in the cord; it causes the palsy of the second stage by paralysing first the motor nerve trunks and then the motor tract of the spinal cord; the sensory nerves are not affected by the drug; nicotine contracts the pupil by stimulating the oculo-motor and paralysing the sympathetic, this action being peripheral; nicotine first lowers the blood-pressure and pulse rate, secondly increases pressure and rate, and finally decreases pressure. The primary lowering of pressure and rate is due to pneumogastric stimulation, associated with vaso-motor dilatation; the second stage is the result of vaso-motor constriction and pneumogastric paralysis; the third is due to vaso-motor dilatation returning. Death by poisoning from this drug results from failure of respiration, the action being on the central nervous system. The blood-corpuscles are broken up and crenated by the action of the poison. In death from nicotine-poisoning the blood shows changes in the spectra. Death can be brought about by cutaneous absorption of nicotine. Tobacco increases intestinal peristalsis in moderate doses, and produces tetanoid intestinal spasms in poisonous ones. The liver appears to destroy the poison, although this destruction is participated in by every set of capillaries in other parts of the body. Tobacco-smoking increases pulse rate and decreases arterial pressure.

### ANTIPYRIN IN RHEUMATISM AND MIGRAINE.

Professor M. A. Khomyakoff and Dr. L'voff, writing in the last number of the *Vrach*, highly praise antipyrin both in acute and chronic rheumatism. They prescribe it in from fifteen- to twenty-grain doses four times a day, and find that in acute rheumatism it very quickly relieves the pain and reduces the swelling without producing any unpleasant effects. It was successful, too, in two cases in which salicylate of soda in large doses had entirely failed to afford relief. Antipyrin proved equally valuable in muscular rheumatism, rheumatic pains in the head and limbs, and in neuralgia of rheumatic origin. It was also employed in twenty-five cases of migraine and pains in the head arising from various causes. In most of these cases the first dose of from fifteen to twenty grains of antipyrin produced a marked alleviation of the pain within twenty minutes. If no effect were produced, a second dose was administered half an hour after the first, and even in the severest cases this did not fail to relieve. Unfavourable symptoms did not present themselves at all throughout the investigation.

### ADONIS VERNALIS AND ADONIDINE.

M. Henri Huchard has reinvestigated the action of adonidine on the heart and vessels. Durand has related a case in which he had been able to give sixteen centigrammes a day with impunity. But Huchard avers that he would never dare to go beyond two or three centigrammes of the glucoside, and even then nausea, vomiting, and epigastric pains may be caused. The action of the medicine is rapid, and even on the first day the effects on the urine and on arterial tension may be observed, as well as on the heart. Its elimination probably takes place rapidly, since all its results disappear a few days after the suspension of the drug. Notwithstanding the value of adonidine, Huchard thinks it cannot be regarded as the successful rival of digitalis.

### A SOPORIFIC IN DYSPNŒA.

Withania somnifera, which was known to the ancients as a sleep-inducing drug, has recently been employed by Dr. Trabut of Algeria in cases of alcoholism, emphysematous dyspnœa, and phthisis, for the purpose of inducing sleep, with a considerable amount of success, greatest apparently in the former two classes of cases. In some respects it appears to Dr. Trabut to be a more trustworthy hypnotic than opium. A tincture, which is very bitter, a crystalline sulphate, and an extract have been prepared by M. Duval, professor of chemistry, who recommends the extract in pills. It is stated not to have a mydriatic effect.

## THE INTERNATIONAL CONGRESS OF HYGIENE.

To all who have realised that a high degree of perfection in sanitary matters will not be easily attained unless sanitary reforms assume an international character, the announcement that the sixth Congress, which was to have been held at Vienna this year, has been postponed will be received with regret and surprise. The International Congresses of Hygiene have met regularly every other year for the last ten years. The towns of Brussels, Paris, Turin, Geneva, and the Hague all faithfully fulfilled their promises, received and gathered their guests from all parts of the world, carrying out the programme established by common consent with much skill and hospitality. For some reason, as yet unexplained, Vienna has thought fit to break through the traditions and postponed for a twelvemonth its invitation to the Congress. Three years must therefore elapse before this, the most catholic of all gatherings on the subject of hygiene, can take place—a fact which, in the face of the cholera epidemic that still menaces Europe, is more especially unfortunate. One advantage, however, will accrue: the delay will give English sanitary reformers more time to prepare themselves. At these Congresses, to which some twenty to thirty nationalities send delegates, England is usually but inadequately represented. As the Congress is not confined to the medical profession, English doctors apparently take but little interest in the proceedings, and the fact that the majority of the members are medical men seems to keep engineers and architects away. On the Continent, however, though sanitation is not so fully developed as

in England, it is well understood that medical men are not alone responsible for the preservation of public health. The services of the chemist, the architect, the engineer, and the public administrator are also indispensable; and it is the special merit of these international Congresses of Hygiene that they have brought together eminent men belonging to all these professions, and representing all the important and many of the less powerful nations of both hemispheres. There is now, in consequence of the postponement, eighteen months to prepare for the next Congress; and we trust that by that time not only will England be powerfully represented, but the English delegates will be able to propose that the Congress hold its seventh meeting in London. No nation has taken a more active part in the development of hygiene, and Englishmen should not be slow to impart their knowledge and practical experience to the representatives of foreign countries. It seems strange that we should remain comparatively inactive in such a cause when small continental towns like the Hague and Geneva have given proof of boundless hospitality and great public spirit.

The report of the work of the sections at the fifth Congress has recently been published. It is issued for the Congress by the Imprimerie sud Hollandaise at the Hague, and was compiled by the secretary-general, Dr. Van Overbeek Meijer. Each speaker was requested to write a summary of his own speech either in French or German. These, when printed, were sent to the author for correction, and then gathered together in the present volume. We thus have before us in compact form the opinions of eminent hygienists belonging to various nations. The accompanying graphic maps and charts serve to illustrate the theories propounded. These embrace, among other subjects, the rival systems of drainage, the English water-carriage, the Dutch Leirnur, and the French Berlier pneumatic drainage; the influence of wood plantations on climate, with the views of the representative of the Russian Government on this question; conclusive evidence from the Dutch delegates concerning the spread of epidemics by the importation of rags; Dr. Brouardel's proposals and arguments in favour of international laws to prevent the adulteration of food; a learned theory by Dr. Thirzinga on over-pressure at school; Dr. Vallin's experiments in conveying tuberculosis to animals by milk from diseased cows; Dr. Roth and Van Dooremaul on the prevention of blindness; speeches, charts, and statistics on the effects of alcoholism in Switzerland and Holland; Dr. Napias, on the factory legislation of all nations; Dr. Layet, of Bordeaux, on voluntary restriction of procreation; Dr. J. Bertillon, speeches and maps showing the districts of Paris most affected by the leading zymotic diseases, and some very interesting statistics and charts on the comparative mortality in the various professions and trades of Switzerland. Thus it will be seen that the problems studied were of considerable practical interest, and we have mentioned but a few out of the number.

## REPORT ON THE SANITARY MEASURES IN INDIA IN 1883-84;

### TOGETHER WITH MISCELLANEOUS INFORMATION UP TO JUNE, 1885. VOL. XVII.

THE information contained in this volume, so far as regards the health of the European and native armies, the prisoners in the gaols, and the civil population of India, has already appeared in the report of the Sanitary Commissioner with the Government of India. As we noticed the more important facts in our review of that volume, it seems unnecessary to go over the ground again. (See THE LANCET, April 11th, 1885.) There are, however, some points to which we may call attention.

There seems to be a fair progress in vaccination, though it is still very far from being general. During the year under review there was an extension of the Compulsory Vaccination Act in Bengal to fifty-six towns and four thannahs. The value of vaccination is shown by the fact that, while the mortality from small-pox was 25 per 1000 in unprotected areas, it was only 07 per 1000 in those that were thoroughly protected. The use of bovine lymph was extending, and the demands for it increasing so much that the establishment was scarcely able to meet them. It is stated that in Madras inoculation is very much practised by the people, and "as it interferes greatly with the progress of vaccination, the Inspector of Vaccination has suggested that an Act should be passed prohibiting inoculation in those districts where vaccination can be had."

In Calcutta the operation of the Contagious Diseases Act was suspended from March 15th, 1883, and apparently with the same result as at home, an increase of venereal disease. Surgeon-General Payne, reporting on the effect of this during the remainder of the year, stated "that the measure had in the course of nine months undone all the good that had been accomplished. The statistics furnished by Dr. Payne apparently show that the withdrawal of the Act had resulted in injury to the health of certain classes of the population."

The report of the medical schools appears to be satisfactory. At the Calcutta Medical College, and the Grant Medical College, Bombay, female students were for the first time admitted, and it is stated that some very promising candidates have presented themselves.

Throughout India the questions of the water-supply and drainage of the towns appear to be receiving increased attention, and the works for these purposes to be making steady, though we fear slow, progress. In Madras the extension of the water-supply throughout the town was completed, and in Bombay considerable progress was made in the works for its improvement. Among the military works in Bengal may be specially noted "the completion of the Peshawur water-supply scheme, the extension of the Umballa water-supply, the provision of water to Pishin, and the commencement of the supply of water to Chakrata." In Madras the water-supply of Bangalore was receiving attention, and steps were being taken to "put a stop to the long-standing nuisance in Fort St. George, caused by the discharge of fetid sewage from the main drain into the sea, just outside the fortification." At Secunderabad, also, a scheme for the much-needed improvement of the drainage of the town was under the consideration of the Resident.

At a time when so much attention is being directed to the most advisable measures for the prevention of the spread of cholera, the following remarks by the Army Sanitary Commission are of special interest: "Were it not that we have other experience in India than that furnished by the civil population, our hope of reducing cholera mortality, by the removal of its local causes, would be very small. But such experience as we have throws a totally different light on the figures of the preceding table [of the registered cholera deaths], and converts them into indices of great local sanitary negligence. For example, local fairs and pilgrimages, which used formerly to be the real foci of local epidemics, have ceased to be so wherever cleanliness has been enforced, pure water provided, and overcrowding prevented. This rule holds universally—subject, however, to a very instructive exception, and this is, that the absolute immunity of the people at these fairs depends, to a certain extent, on the epidemic intensity in the district where the fair happens to be held. If the district mortality be not excessive, the fair-people will escape; but if the district mortality be high, some of the fair-people will suffer, but never to the ratio of the local population. That is on the supposition that the usual precautions are adopted." Under the head of General Remarks (p. 141) the Army Sanitary Commission has given a short but very clear and interesting account of "the attempts which have been made by the use of the microscope, and by other methods of inquiry, to obtain some knowledge of the pathology and etiology of the disease," and of the discussions which have taken place regarding it, with special reference to Professor Hallier's rice fungus theory, and the investigations by Koch, Klein, Lewis, and others into the subject of the cholera bacillus. The practical conclusion at which they have arrived is that expressed by Dr. Cuningham, "Once accept the great principle that the improvement of local conditions is the one and only principle on which the State can act with advantage in matters of public health, and the solution of the whole question will be comparatively easy. Sanitary administration will then no longer attempt to accomplish impossibilities, but will be directed to those great practical reforms which cannot fail to improve the health and thereby add to the happiness and prosperity of the people." The report contains a great mass of information respecting the distribution of disease throughout the various divisions of India, and the means which have been adopted, and those which are still in progress, to improve the sanitary conditions alike of the military and civil population.

## SUCCESSFUL EXTIRPATION OF AN ENDO-CRANIAL TUMOUR.

THE latest *Bullettino* of the Royal Academy of Medicine of Rome (1885, No. 7, p. 247) reports a communication of exceptional interest by Dr. Durante. The patient, Signora C. B——, of Narni, aged thirty-five, was of sound constitution. The left eyeball projected forwards and outwards, but its movements and functions were unimpaired. The deformity had commenced about three months previously, and was preceded by the following symptoms: gradual loss of the sense of smell to complete extinction; perceptible impairment (*affievolimento sensibile*) of memory, particularly with reference to names; a feeling of uncertainty on movement, and, to use the patient's words, a sense of emptiness (*vacuità*) about the person. Motility and sensibility to heat and pain were experimentally proved to be normal. Hearing, taste, and the gastro-enteric functions were normal. The nasal cavities were explored with negative result. The lady's husband stated that her formerly gay disposition had become melancholy, although she did not seem much impressed by her ailment. The disturbance of memory, loss of sense of smell, and the subjective and objective state of the patient, convinced Dr. Durante of the existence of a tumour within the cranial cavity, which had destroyed the olfactories, compressed the anterior lobes of the brain, and penetrated into the orbital cavity through its roof. The patient, fully warned as to the importance and uncertainty of the operation, assented to it, and Dr. Durante performed it on June 1st in the presence of several colleagues. He commenced by making a curved incision from the inner angle of the left palpebral aperture to the glabella, and hence in a straight line upwards almost as far as the hair. The soft tissues having been raised from the bone, an opening was made into it layer by layer (*a strati a strati*) with a hammer and chisel. A portion of the frontal bone was removed to the extent of about two square inches (*circa cinque centimetri quadrati*). We proceed to translate the conclusion of Dr. Durante's narrative:—"I found that the frontal sinus had disappeared, the inner wall having been forcibly pushed against the outer one. On removing the inner table I found myself in the presence of the tumour, which I began to remove very carefully by means of a spoon. After having removed the greater part of it, I perceived that its only point of attachment was the dura mater covering the left lobe; hence I found it easy to enucleate it throughout its whole extent from the left anterior fossa and part of the corresponding right fossa at the base of the brain. The tumour reached as far back as the anterior clinoid tubercles of the sella turcica. Corresponding to the left cribriform plate of the ethmoid, a prolongation of the tumour descended into the ethmoid cells. Having excised the tumour from its connexion with the dura mater, I noted that it had depressed the orbital roof without penetrating it, and had reduced to the smallest limits the left anterior cerebral lobe and flattened the right one. The left lobe appeared substituted by the tumour, which in its entirety was equal in volume to an apple. Having carefully arrested the flow from the bleeding surface and introduced a drainage-tube into the cranial cavity through the left nasal fossa, I united the wound of the soft parts for healing by the first intention. The operation lasted about an hour. The loss of blood was relatively not great. The patient bore chloroform very well, and woke up slowly. Reaction was complete the third day. The wound had a perfectly aseptic course, the drainage-tube acting well in carrying off a very large quantity of serum slightly tinged with blood. The fourth day the patient was very prostrate. She was sleepy, indisposed to talk, and complained of great mental confusion. The drainage-tube had ceased to act during the night. I displaced it a few lines downwards, and it began to yield a few drops of turbid serum. With a small indiarubber pump I aspirated the external aperture of the tube, and thus extracted about thirty grammes of liquid. The dropping was abundantly re-established, and continued the whole of the following day and night. The alarming symptoms disappeared step by step the subsequent day. On the seventh day I removed the points of suture, and on the ninth the drainage-tube. In fifteen days the patient returned home perfectly well, without, however, having recovered the sense of smell or much improved in memory. In spite of general weakness, due to the operation, the patient said she no longer experienced the indefinite sense of emptiness around her. There was no appreciable sign of reproduction of the portion of bone removed; the displacement of the eyeball was in part reduced. Three months later I again saw Signora B——. She was very happy to inform me that her mental faculties and her normal state had been restored, and that gradually she had regained the sense of smell. This fact surprised me all the more that I was convinced of having destroyed the left olfactory during the operation, in removing that portion of the tumour which had penetrated the cribriform plate of the ethmoid. I therefore made some experiments, causing the patient to smells some aromatic substances with either nostril. I found that smell was normal on the right side, and entirely lost on the left. Microscopic examination of the tumour proved it to be a fusi-cellular sarcoma arising from the dura mater. Only one such operation is recorded in surgical history. That was performed by Amidon in America some months since, but the patient died of meningitis on the eleventh day."

## ACTION OF SUNLIGHT ON MICRO-ORGANISMS.

AT the last meeting of the Royal Society, on Jan. 14th, a paper on the Action of Sunlight on Micro-organisms was read by Dr. DOWNES, medical officer of health for the Chelmsford combined districts. In previous papers to the Society in 1877, 1878, and 1879, the author, conjointly with Mr. T. Blunt, showed that sunlight was fatal to saprophytes by a process of hyperoxidation thereby induced. In this process the more refrangible rays were the most active. In the course of the research two other facts of importance also came out. It was found that in the presence of free oxygen the molecule of oxalic acid might be entirely resolved into water and carbonic acid by the action of light, more especially of the more refrangible rays, $C_2O_4H_2 + O = 2\,CO_2 + H_2O$. Further, it was discovered that the alterative ferment of cane sugar (a representative of the singular and important bodies, the diastases, which play so important a part in animal and vegetable economy) was oxidised by sunlight. These investigations have not as yet been repeated as a whole, but each point put forward in them has now been confirmed by independent observers.

After a reference to the results obtained by Professor Tyndall in 1881, and by others, the author summarises the recent work of Professor E. Duclaux, who finds that micrococci are apparently far more sensitive to sunlight than the spore-forming bacilli. Dr. Downes and Mr. Blunt, in their original memoirs, had noted the variation of resistance of different organisms—e.g., of the hypho- and saccharo-mycetes—as compared with the ordinary putrefactive bacteria; and the former now describes a specially resistant form of bacterium, resembling, but not identical with, the ascobacteria of Von Teighem. Duclaux coincides with Downes and Blunt in regarding the process as an oxidation, and confirms their results as to the destruction of diastase by sunlight.

In refuting the conclusion of Dr. Jamieson, an Australian observer, that the injurious effect of sunshine on micro-organisms is simply a result of heat, Dr. Downes gives an account of recent experiments of his own, which indicate that a similar action, though of course in less degree, is exercised by diffused light. He concludes with a reference to the well-known observations of Pringsheim on the destruction of vegetable protoplasm by light, and claims them as evidence of the truth of his former generalisation that the hyperoxidation of protoplasm by light is a general law, from the action of which living organisms are shielded by a variety of protective developments of cell wall, aggregation of tissue or colouring matter, and in other ways.

AMONG the members of the recently formed Royal Commission to investigate and report upon the condition and education of the deaf and dumb are Drs. T. R. Armitage, R. M'Donnell, and W. T. Robertson.

# VITAL STATISTICS.

## HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5813 births and 3966 deaths were registered during the week ending January 23rd. The annual death-rate in these towns, which had been equal to 22·5 and 23·8 per 1000 in the preceding two weeks, declined again last week to 22·4. During the first three weeks of the current quarter the death-rate in these towns averaged 22·9 per 1000, and was 1·5 below the mean rate in the corresponding periods of the ten years 1876-85. The lowest rates in these towns last week were 10·4 in Birkenhead, 16·1 in Leicester, 17·2 in Oldham, and 17·3 in Halifax. The rates in the other towns ranged upwards to 26·3 in Liverpool, 27·9 in Plymouth, 30·0 in Blackburn, and 30·4 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 448 and 435 in the preceding two weeks, further declined last week to 407; they included 159 from whooping-cough, 100 from measles, 38 from "fever" (principally enteric), 38 from scarlet fever, 38 from diphtheria, 31 from diarrhœa, and 3 from small-pox. No death from any of these zymotic diseases was recorded last week in Halifax, whereas they caused the highest death-rates in Blackburn, Bolton, and Nottingham. The greatest mortality from whooping-cough occurred in Newcastle-upon-Tyne and Nottingham; from measles in Oldham, Plymouth, and Nottingham; from scarlet fever in Leeds and Sunderland; and from "fever" in Portsmouth, Sunderland, and Birkenhead. The 38 deaths from diphtheria included 20 in London, 5 in Liverpool, 2 in Wolverhampton, 2 in Birmingham, 2 in Hull, and 2 in Sunderland. Small-pox caused 3 deaths among the residents of London and its outer ring, 3 in Liverpool, and not one in any of the twenty-six other provincial towns. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had declined in the preceding ten weeks from 90 to 35, had further fallen to 26 on Saturday last; only 2 patients were admitted to these hospitals last week, against 11 in the previous week. The Highgate Small-pox Hospital contained 3 patients on Saturday last, no case having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 518 and 534 in the preceding two weeks, declined last week to 477, and were 63 below the corrected weekly average, a noteworthy fact if the recent cold weather be borne in mind. The causes of 95, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Nottingham, Leicester, Sunderland, Oldham, and in five other smaller towns. The largest proportions of uncertified deaths were registered in Liverpool, Halifax, Sheffield, and Hull.

## HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·9 and 23·9 per 1000 in the preceding two weeks, was 23·1 in the week ending January 23rd, and exceeded by 0·7 the mean rate during the same week in the twenty-eight English towns. The rates in the Scotch towns last week ranged from 11·8 and 13·0 in Leith and Paisley, to 25·4 and 28·8 in Dundee and Glasgow. The 570 deaths in the eight towns showed a decline of 19 from the number in the previous week, and included 14 which were referred to diphtheria, 7 to diarrhœa, 6 to "fever" (typhus, enteric, or simple), 6 to whooping-cough, and 1 each to small-pox, measles, and scarlet fever; in all, 36 deaths resulted from these principal zymotic diseases, showing a further decline from 45 and 40 returned in the preceding two weeks. These 36 deaths were equal to an annual rate of 1·5 per 1000, which was 0·8 below the mean rate from the same diseases in the twenty-eight English towns. The deaths referred to diphtheria, which had been 2, 6, and 8 in the previous three weeks, further rose last week to 14, of which 7 occurred in Glasgow and 4 in Aberdeen. The 7 deaths attributed to diarrhœa showed a decline from recent weekly numbers, and included 4 in Dundee. The 6 deaths referred to "fever" corresponded with the number in the previous week; 4 occurred in Glasgow. Five of the 6 fatal cases of whooping-cough, showing a considerable decline from recent weekly numbers, were returned in Glasgow; and the death from small-pox occurred in the same city. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 132 and 145 in the preceding two weeks, further rose last week to 160, but were 36 below the number returned in the corresponding week of last year. The causes of 77, or nearly 14 per cent., of the deaths in the eight Scotch towns last week were not certified.

## HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 28·8 and 33·3 per 1000 in the preceding two weeks, declined again to 29·6 in the week ending Jan. 23rd. During the first three weeks of the current quarter the death-rate in the city averaged 30·6 per 1000; the mean rate during the same period did not exceed 22·7 in London and 19·2 in Edinburgh. The 200 deaths in Dublin last week showed a decline of 25 from the number returned in the previous week, and included 24 which were referred to the principal zymotic diseases, against 15 and 30 in the preceding two weeks; 17 resulted from whooping-cough, 2 from "fever" (typhus, enteric, or simple), 2 from measles, 2 from scarlet fever, 1 from diarrhœa, and not one either from small-pox or diphtheria. These 24 deaths were equal to an annual rate of 3·5 per 1000, the rate from the same diseases last week being only 2·5 in London and 0·6 in Edinburgh. The fatal cases of whooping-cough, which had been 8 and 19 in the previous two weeks, declined again last week to 17. The two deaths referred to "fever" were fewer than in any recent week, as were also the fatal cases of scarlet fever. The 2 deaths from measles were the first recorded since the beginning of this year. Eight inquest cases and 4 deaths from violence were registered; and 46, or nearly a quarter, of the deaths were recorded in public institutions. The deaths of infants showed a further increase upon the numbers in the previous two weeks, while those of elderly persons had declined. The causes of 25, or nearly 13 per cent., of the deaths registered during the week were not certified.

# THE SERVICES.

WAR OFFICE.—Army Medical Staff: Surgeon-Major John Joseph O'Reilly is granted retired pay, with the honorary rank of Bridgade Surgeon.

MILITIA MEDICAL STAFF.—Surgeon-Major Edward Allen Waterworth, M.D., 3rd Brigade, Southern Divison, Royal Artillery, resigns his commission.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon James Thomson has been placed on the retired list, with permission to assume the rank and title of Deputy Inspector-General of Hospitals and Fleets.

The following appointments have been made:—Staff Surgeon Richard S. P. Griffiths, to the *Serapis;* Surgeon Cyril J. Mansfield, to the *Excellent*, additional, for disposal; Surgeons Octavius S. Fisher and Herbert P. Shuttleworth, to the *Royal Adelaide*, additional, for Plymouth Hospital; Surgeon John Lonney, to the *Lion*, additional, for disposal; Surgeon George J. Trevor-Roper, to the *Indus;* Surgeon Robert Hickson, to the *Cambridge;* Surgeon John Moore, to the *Duke of Wellington;* Surgeon John S. Fogerty, to the *Asia;* and Mr. George H. Johnson, to be Surgeon and Agent at *Teignmouth*.

RIFLE VOLUNTEERS.—5th Durham: Acting Surgeon Frederick William Gibbon resigns his appointment.—1st London (the City of London Rifle Volunteer Brigade): Arthur John Hubbard, Gent., M.B., to be Acting Surgeon.—1st Volunteer Battalion, the Royal Fusiliers (City of London Regiment): Surgeon William Johnson Walsham resigns his commission.—4th Volunteer Battalion, the Norfolk Regiment: Edward Thurlow Prior, Gent., to be Acting Surgeon.

ROYAL MATERNITY CHARITY.—The 129th annual meeting of the governors of this charity was held on the 27th inst. The number of women who received medical and other help during the past year, without removal from their homes and families, was 3331, and of these only twelve died. The financial condition of the charity is most unsatisfactory, and the trustees have been compelled to sell out £1000 of the funded stock to meet the large and constantly increasing number of patients applying for its help.

# Correspondence.

"Audi alteram partem."

## ROYAL COLLEGE OF SURGEONS.

*To the Editor of* THE LANCET.

SIR,—With reference to the article in your issue of the 23rd inst. regarding the constitution of the Council of the Royal College of Surgeons, I would beg to remark that the College was founded in order to promote the art and science of surgery; this fact is reiterated in all the charters granted to the College. It was "in order more effectually to promote and encourage the study and practice of surgery" that the class of Fellows by examination was instituted. I believe that in the interests of surgery it is desirable that the College should continue to have the power to confer honours in surgery, and that the honours should carry with them any privileges which it is in the power of the College to bestow; and, consequently, that those only who gain the Fellowship should be entitled to a seat on the Council. It is open to any Member of the College to pass the examination for the Fellowship, and I should very much like to see the second examination or that in the practice of surgery alone insisted on for Members of twelve years' standing and upwards.

It is urged that one of the reasons why Members of the College should have seats in the Council is because it is desirable that the views of general practitioners should be heard at the Council. But a very large proportion of the Fellows are in general practice. If, therefore, general practitioners have interests which it is the province of the College to advance, as distinct from those of consulting surgeons, there can be no reason why their views should not be advocated at the Council by Fellows who are engaged in the work of general practice. What I mean is, that the fact of a man being a Fellow of the College in no way lessens his power to appreciate the feelings of general practitioners, especially if he is engaged in that line of the profession; the idea above referred to consequently appears to me to be groundless, so far as it applies to Members being elected to the Council.

On the other hand, by only permitting Fellows to be elected to the Council it is possible we enhance the privileges of the Fellowship, and may lead men to seek this honour, and thus forward the objects for which the College was founded. Beyond this it seems to me most objectionable to have anything like class distinctions or interests in the Council; at the same time, to my mind, there are many sound and valid reasons why Members of the College should have a voice in the election of the Council. It is feared that if all Members of ten years' standing are allowed to vote for candidates for the Council, the voice of the Fellows will be swamped; but there are means by which this difficulty may be overcome. It is, however, useless entering into details until we know what the opinion of the Fellows is upon the subject. There can be no question that the Fellows of the College are in possession of all the rights and privileges of electing members of Council; but it is impossible for anyone at present to know what their feelings, if they have any, on this matter may be. It was to ascertain this point that I brought forward my resolution at the Council of the College of Surgeons on Jan. 14th.

I am, Sir, yours truly,

Grosvenor-street, Jan. 25th, 1886. C. MACNAMARA.

## "MR. HORSLEY'S CRITICISM ON PROF. SCHIFF."

*To the Editor of* THE LANCET.

SIR,—The necessarily incomplete nature of the abstract of my lectures that appeared in your issue of Jan. 2nd has provided Dr. Huggard with a favourable opportunity of reviving an old story. The moral which adorns his tale, however, does not apply to my experimental demonstration of the condition of the spinal cord when subjected to Professor Schiff's experiments, for I have never injured the motor tract in any of my operations. I pointed out in my lectures that the tension of wound-exudation (not suppuration of course) on the one hand, and interference with the vascular supply of the postero-lateral portion of the cord on the other, determined a *local* degeneration in the motor tract of the same side of the cord, the area of degeneration never extending more than about two millimetres on each side of the point of section. Further, I also showed that the result described by Schiff—viz., absence of movement in the fore limb of the same side as the cord lesion, when, nevertheless, the corresponding motor centre in the opposite cortex was excited—appeared in exact proportion to the degree of degeneration observable in the motor tract, and that in two cases where the degeneration was very slightly marked, Schiff's result did not appear, although the posterior column had been perfectly divided. I am about to publish in *Brain* the full details of the experiments on which my criticism of Professor Schiff's work is based, and I trust that we shall soon have the unusual opportunity of seeing Professor Schiff's methods, details of experiment, drawings of the lesions produced, and, last but not least, a full account of the state of the motor tract (opposite the seat of operation) published *in extenso* for comparison.

Dr. Huggard's praiseworthy energy in reporting Professor Schiff's experiment last summer leads me to hope that he will furnish us with the foregoing details, since until we know, for instance, that Professor Schiff has examined the motor tract as I have described, &c., it is somewhat premature to depart from the language of ordinary criticism, and to explain my opposing results as due to "lack of success."

I am, Sir, yours faithfully,

VICTOR HORSLEY.

Park-street, Grosvenor-square, W., Jan. 26th, 1886.

## THE CONNEXION BETWEEN THE PAROTID GLANDS AND THE GENERATIVE ORGANS.

*To the Editor of* THE LANCET.

SIR,—The interesting letters in your issues of the 9th and 16th inst. from Mr. Stephen Paget and Dr. F. L. Tayler on this subject induce me to record the following cases, which will be seen to bear on the subject from both sides of the question—viz., the occurrence of parotitis from irritation of the genito-urinary system, and, conversely, the occurrence of ovaritis in connexion with parotitis.

The first case was that of an old gentleman aged eighty-five, who was much troubled with irritable bladder. I had passed a flexible catheter on several occasions without any subsequent irritation, and as there was but little enlargement of the prostate to account for his increasing trouble, I introduced a sound, easily and without much pain, to make sure that he had no calculus. This proceeding set up great irritation, and on the second day he had violent rigors, and complained of stiffness and pain about the right parotid, which became much enlarged and suppurated, and caused death from exhaustion in about a fortnight. During the whole time the catheter was required to relieve the bladder, owing to the inflamed and swollen condition of the prostate.

The next case was that alluded to by Mr. Stephen Paget, in which an acute attack of parotitis was induced by the introduction of a Hodge's pessary, although the pessary had given great relief, and caused no apparent local irritation. This patient was fifty-eight years of age, and long past the climacteric period. As she had never borne children, we may assume that the genital organs were in a very quiescent state. She has since been able to wear the pessary with great benefit. The parotid attack lasted about ten days, but began to subside on the removal of the pessary.

The other two cases were so similar to one another that one account will serve for both. They occurred in single ladies about twenty to twenty-two years of age, both in fairly good health, when they contracted mumps from infection, and for a week seemed to progress as usual. They were then attacked with rigors and pain in both ovarian regions, the pain being intensified by moving in bed. The ovaries could be felt swollen and very tender. The acute attacks subsided in about a week, but left the ovaries still tender and enlarged for some time. In both cases the general health of the patients was considerably impaired for some months.

These cases seem to expand the idea of the connexion of the parotid with the testes and ovaries into some unexplained association of the parotid on the one hand with the whole genito-urinary system on the other; the first two cases indicating sympathy between the parotid and the

prostate and vagina respectively, and the last two between the parotid and the ovaries.

In none of these cases was there any reason to believe that the peritoneum was implicated, and in the first two the affections were evidently secondary parotitis, not mumps. Nor do I think that Dr. Tayler's septic theory can be admitted except in the first case.

I cannot help thinking that ovaritis would be found more frequently associated with mumps if it were carefully inquired for, as we know young women are very apt to conceal pains occurring in those regions unless expressly questioned about them.

I am, Sir, yours truly,

Highbury-place, Jan. 1886. ARTHUR J. CRIBB, M.D. Lond.

## PROSTATIC CASTS.

*To the Editor of* THE LANCET.

SIR,—In a paper recently read by Sir Andrew Clark, at the Clinical Society of London, on a "Case of Acute Prostatitis, with Discharge of Hyaline Cylinders resembling Renal Cylinders," and to which your annotation of Jan. 16th directs further attention, the author remarks: "These cases with prostatic casts in the urine may be only curiosities of medical experience, but since in none of the standard works on urinary affections, and in no monographs dealing with diseases of the prostate, can any reference be found to the discharge of hyaline cylinders in prostatitis, and without careful examination they might very easily be mistaken for cylinders originating in the kidney, I have thought the case was of sufficient importance to bring it before the notice of this Society."

Sir Andrew Clark is mistaken in supposing that he has made an original observation. In two papers published by me in THE LANCET (Oct. 14th and 21st, 1882) on Prostatorrhœa—a by no means infrequent disease—a case is referred to in which prostatic casts were believed to exist in the urine, and an illustration of the deposit is given, while the subject is referred to, not by any means as an original observation, but as one generally recognised. In his book on the "Male Sexual Organs," S. W. Gross, of Philadelphia, in the chapter on Prostatorrhœa, remarks: "If the patient be requested to pass the first two or three ounces of urine in a glass, that fluid will be found to contain delicate filiform shreds, which are sometimes more than half an inch in length, and which are muco-purulent casts of the follicles and ducts of the prostate. This highly characteristic sign of the affection, when considered in connexion with the local signs and the minute examination of the discharge, the composition of which has already been sufficiently considered, is quite sufficient to establish the true nature of the trouble." Delafosse (Paris, 1885) gives an illustration of these casts, and they are described by many other authors, to whom it is superfluous to refer.

I am, Sir, yours &c.,

Glasgow, Jan. 25th, 1886. D. CAMPBELL BLACK.

## THE METROPOLITAN ASYLUMS BOARD.

*To the Editor of* THE LANCET.

SIR,—I have read with interest a leading article relative to the Metropolitan Asylums Board in your issue of the 23rd inst.

The evils and abuses likely to arise under the system of divided or multiple and co-ordinate authority hitherto exercised in the asylums and hospitals under the control of the managers appear within the last few years actually to have arisen, and some of them have been sufficiently demonstrated in the late Eastern Hospitals inquiry. The question therefore presents itself to the managers for their consideration, whether, if not already done, the time has not now arrived when free effect should be given to the order of the Local Government Board, dated Feb. 10th, 1875, by which sufficient authority is vested in the medical superintendent to enable him to control in their duties the officer's attendants and servants of each establishment, if duly supported by the managers. This step would, at all events, serve the one good purpose of enabling the managers with fairness to fix responsibility.

I am, Sir, your obedient servant,

Harley-street, W., Jan. 1886. JAMES ADAM, M.D.

## MANCHESTER.

*(From our own Correspondent.)*

### MEDICAL SOCIETIES.

THE annual meeting of the Medical Society evidenced a flourishing condition of its affairs, the number of members being 242, whilst the treasurer was able to show a balance on the right side of more than £100 on the year's receipts and expenditure, whilst there is invested in the name of the trustees, on behalf of the Society, £1110. Another member of the surgical staff of the infirmary, Mr. Hardie, has been elected president for the current year, this making the sixth year in succession that the presidential chair has been occupied by one of the staff of the Royal Infirmary. It would have been good policy on the part of the committee to have nominated someone outside the charmed circle, for there is a widespread feeling amongst many members of the profession that this distinction is confined rather too much to the infirmary staff. The Medico-Ethical Society has nominated Mr. Walmsley for re-election as president, thus following the precedent of the previous two years, when Dr. Lloyd Roberts held the same office.

### HEALTH LECTURES.

The popular lectures given this winter on sanitary and popular medical subjects are more numerous than usual. Before Christmas, Miss Emily Hall delivered a very useful series on Personal and Domestic Hygiene. Then we have the annual course delivered under the auspices of the Sanitary Association, which has again this year arranged a series having a certain amount of connexion the one with the other; they all relate in some manner to food or drink, the different lecturers taking each a special article of diet. And, lastly, a course is being delivered at the Ancoats Hospital by the staff of that institution, much resembling the ordinary ambulance course. Mr. Bishop delivered the first on Surgical Emergencies, and Dr. Niven the second on Medical Emergencies. There will shortly be a vacancy on the staff of this institution, owing to the appointment of Dr. Niven to the post of medical officer of health to the neighbouring borough of Oldham. A very interesting paper on the sanitary work carried on by the Health Committee of the Corporation was lately read by Mr. Whiley, the superintendent of the department, before the Statistical Society. The magnitude of its operations is shown by the expenditure on this work, which amounts to no less than £86,000 per annum, and another £60,000 is about to be expended upon a sewage farm on Carrington Moss. Municipal work in Manchester is carried on in no pigmy style: the Water Committee are bringing us water from the lakes of Cumberland, at an estimated cost of something like a quarter of a million sterling, the engineering skill shown in this undertaking rivalling the work of a similar nature for the supply of water to Ancient Rome.

### EDUCATIONAL MATTERS.

In all probability we are to have an important experiment tried in connexion with our Board Schools. A deputation from the Manchester and Salford Trades Council waited upon the School Board at their last meeting, pointing out the great importance of attempting to attract young people, boys and girls who have just left school, to evening classes; seeing that it was between the years of thirteen and eighteen that young people acquired those habits which more or less affected their whole after-life, they asked the Board to assist them in endeavouring to counteract the attractions and facilities which existed in all large towns for young people to form idle and vicious habits. Allusion was made to work of a similar kind being done in Nottingham, and the Board promised their careful consideration of the matter. At the last meeting of the Salford School Board there was rather a lively passage of arms between some of the members over the management of the industrial schools. If the statements made be correct—viz., that the children have to attend at 6 A.M., that little children of ten years of age have to clean the floors, and that their dinner consists of suet pudding six days in the week and pea-soup on the sixth—they are certainly not being reared as hothouse plants.

### BUTTERINE.

It cannot be said that the Adulteration of Food and Drugs Act is a dead letter here, for scarcely a week passes without

prosecutions being instituted against offenders. The latest raid has been upon the butter-dealers, a number of whom were recently convicted and fined for selling butterine in lieu of the genuine article. It is a pity that this article is not sold in an open and honest manner, as it is undoubtedly a useful and legitimate food stuff, and, as was admitted by the public analyst, very preferable to the common sort of butter which alone could be got for the same price. As one of the dealers put it, "the people know quite well what it is they buy; they like it, and come again for it."

## LIVERPOOL.

*(From our own Correspondent.)*

### THE PROVIDENT DISPENSARY SCHEME.

THE public meeting called to discuss the provident dispensary scheme, which was alluded to in THE LANCET of last week is calculated to do a great deal of good. If its promoters can succeed in substituting it for the many clubs which still exist, and which give little or no satisfaction either to the members or their medical attendants, they will have done an excellent work. The history, however, of most provident dispensaries shows that they are most successful in small towns or in certain districts of large towns. Whether one of so comprehensive a character as shall comprise the whole of Liverpool be feasible remains to be seen. It should be stated, however, that our medical charities are neither too numerous nor more abused than those of other cities. If anything, Liverpool has been somewhat slack in recognising the necessity for hospitals. The Royal Infirmary was not established until the middle of last century, and when rebuilt in 1824 only contained 200 beds, though the population in 1831 was 205,000. It remained the only hospital till 1834, when the Northern Hospital was established. In 1841 the Southern Hospital was founded, the population of the borough and neighbourhood being then 286,000. At none of these three hospitals are out-patients seen, except casualties and former in-patients; while at the three Dispensaries, the Eye and Ear Infirmary, the Infirmary for Children, and the Hospital for Women, the patients' pence amount to a very considerable sum. The Stanley and Bootle Hospitals are of comparatively recent date, and seeing that the population of Liverpool and its suburbs now reaches nearly 600,000, our hospitals cannot be said to be in excess of what is reasonably required, nor disproportionate with those of other cities.

### THE INFIRMARY FOR CHILDREN.

At the annual meeting of the Infirmary for Children, held on the 26th inst., it was stated that the number of in-patients during 1885 was 1012, the out-patients were 9577, and the attendances 27,131. The drainage having been found to be defective, this was rectified at a cost of £857. Although every economy consistent with efficiency was practised, the financial position of the charity was such as to cause anxiety to the committee, the depression of trade seriously affecting the receipts, while the expenditure had been increased.

### PROPOSED REMOVAL OF ANOTHER CITY CHURCHYARD.

Notice has been given by the authorities of their intention to remove a portion of St. Thomas's Churchyard for the purpose of city improvements. When first erected this church and churchyard were situated outside the city, in a lane leading to Toxteth Park, still called Park-lane. Now it is surrounded by buildings, many of the most squalid description; the churchyard is a dreary waste of tombstones, the receptacle for stray rubbish, and as unsightly as a burial-ground can be. It was closed in 1854. Most of the interments are in vaults.

### THE MERSEY TUNNEL.

The new tunnel under the River Mersey, which will be open to traffic on the 1st prox., will be a great boon to all who are now compelled to cross the river in steamboats in foggy or tempestuous weather. Most welcome will it be to persons who are specially subject to sea-sickness and those who have delicate chests. Many a severe illness and even death might be traced to crossing over in a fog. It is very gratifying to add that, by adopting all the most recent improvements in tunnel ventilation, the air of the new tunnel is stated to be remarkably clear.

Liverpool, Jan. 27th.

## NORTHERN COUNTIES NOTES.

*(From our own Correspondent.)*

### NEWCASTLE HOSPITAL SUNDAY.

THE final official lists of the collections made on behalf of the Newcastle Hospital Sunday Fund in October last have been published. The amount realised from places of worship was £1974 19*s.* 4*d.*, as compared with £1888 9*s.* in the previous year. The sum collected in manufactories, collieries, and other works amounted to £1437 5*s.* 9*d.*, the amount of the corresponding list of 1884 having been £1474 18*s.* 11*d.* The total product of the two sources of revenue in October last was £3412 5*s.* 1*d.*, as compared with £3363 7*s.* 11*d.* in 1884. There has thus, it will be seen, been a slight falling off in the amount derived from workpeople, but with the increased sum obtained from places of worship there is altogether an improvement to the extent of £48 17*s.* 2*d.*

### POISONING BY LUCIFER MATCHES.

Since I last wrote another case of attempted suicide by steeping lucifer matches and drinking the infusion has been before our magistrates. The girl recovered, but has been in a very weak state for some time. She was discharged after a sharp reprimand. A fatal case, however, has just taken place in South Shields from the same cause, and an inquest has been held. It appears that the young woman, aged twenty-four, after some misunderstanding with her sweetheart, steeped thirty boxes of matches in water and drank the fluid. Dr. Young deposed to having seen the deceased, who exhibited the usual symptoms of poisoning by phosphorus—viz., burning pain in the chest and stomach, great thirst, and exhaustion. The vomit smelt strongly of phosphorus, and was luminous in the dark. The coroner deprecated the practice of the press publishing full reports of such cases, thus giving love-sick girls a cheap and easy receipt for destroying themselves.

### HALFPENNY BREAKFASTS.

The head master of the Board School at Wallsend (Mr. Tocher), seeing so much distress about, and that many of the children attending his school were badly prepared to face the lessons of the day for want of sufficient food at home, and being, it is said, a firm believer in oatmeal, once the chief of "Scotia's food," determined to do something on his own account without waiting for "a committee." So he ordered a good supply of oatmeal from a mill in Berwickshire of the finest quality. The cooking operations commence at 6·30 A.M., and the porridge is allowed to boil for fifty minutes, and is cooled and ready for serving out at a quarter past eight. Each child is supplied with about a pint of porridge—more or less according to size and appetite—and a little more than half a gill of good skimmed milk. About 120 children are thus receiving breakfasts at a cost of about one halfpenny each, and in most cases they are given free. In times gone by oatmeal was also the staple food of the north of England; it will be curious if it comes again into use. Its value as regards nutrition for children is beyond dispute; high wages have conduced to a high-class, though not better, food for the children of our working classes.

Newcastle-on-Tyne, January 26th.

## EDINBURGH.

*(From our own Correspondent.)*

### THE CHAIR OF AGRICULTURE.

AT a recent meeting of the Highland and Agricultural Society it was decided to renew the grant of £150 per annum towards the endowment of the University Chair of Agriculture. For several months this grant has been in abeyance pending the result of a discussion upon the subject of agricultural education generally. The chair has in the past been maintained by University endowments, by an annual Government grant, and by the grant from the Society already mentioned. The committee of the Society, to whom the question of educational arrangements was handed over, have not yet been able to bring forward any definite scheme for adjusting the matter. In the meantime, the Society has been approached on two sides: by the Uni-

versity authorities, who request a continuance of the old arrangement, for a time at least, till a new Universities Bill may deal with the larger question of agricultural education; and by Sir Francis Sandford, Under Secretary for Scotland, who represented that the Government were prepared to continue their grant in the annual estimates only on condition that the Society's grant was also continued. This latter intimation settled the matter; the Society at once agreed to continue their endowment. The result is satisfactory; for not only would a contrary conclusion have probably signified the abolition of the chair, but would have seriously interfered with the prospects of the newly appointed professor, whose class has already been greatly increased, and whose energetic treatment of his subject bids fair to make the course of lectures one of the most complete which the University offers.

### THE FEVER HOSPITAL AND CLINICAL INSTRUCTION.

The Public Health Committee, who are charged with the administrative arrangements of the City Fever Hospital, have brought in a report to the Town Council in which they propose a settlement of the questions which have been recently discussed as to the propriety of appointing clinical lecturers on fevers and admitting students to the use of the hospital wards. They propose that a competent visiting physician should in the first place be appointed for a term of three years; and that he should be capable of giving instruction to any students who may attend, should it be decided to allow such attendance. The committee do not in the meantime propose to attach any emolument to this post, as they believe there will be little difficulty in obtaining the services of a thoroughly qualified physician who will be prepared to discharge his duties gratuitously. Should the teaching of students be superadded to his visiting duties, some other arrangement would be submitted. Till the appointment is made the committee reserve further suggestions as to clinical teaching, in the hope that when this point is beyond the range of controversy the various medical bodies will combine in suggesting some comprehensive scheme for conducting the instruction which will satisfy the wishes of all parties, both teachers and students alike. While admitting the importance of this branch of education in the training of medical men, the committee consider it an imperative duty to see that these arrangements in no way interfere with the primary object of the institution—the careful treatment and nursing of its inmates; and they show no inclination to further arrangements which might make this course of instruction a compulsory adjunct to either the University or extra-academic curriculum.

### AMBULANCE INSTRUCTION FOR THE POLICE.

A project is at present under the consideration of the Town Council by which instruction in first aid to the injured is to be given to the whole of the city police force by members of St. Andrews Ambulance Association. A commencement was made in this direction last year, when Dr. Skene Keith trained a small number of the force in the elements of ambulance drill; and so good were the results of this training that it is now hoped that the whole body of police may be instructed in the same system, and rendered capable of supplying efficient aid in those cases of emergency which occur from time to time in the streets.

### ROYAL PHYSICAL SOCIETY.

At the January meeting of this Society, Professor Turner, the newly-elected President, inaugurated the session by some introductory remarks on the present position and future prospects of the Society, which he considered satisfactory. An obituary notice of the late Dr. W. B. Carpenter was read by Professor Cossar Ewart. A number of communications followed, amongst them one by the President on the Distribution of the Bottle-nosed Whale and its occurrence in Scottish Waters, which was illustrated by a series of charts and diagrams.

Edinburgh, Jan. 27th.

## PARIS.

*(From our own Correspondent.)*

### DEATH OF DR. JULES GUÉRIN.

ONE of the most remarkable characters of the profession of this country has just passed away in the person of Dr. Jules Guérin, who died suddenly at Hyères, whither he had gone to recruit his health, which had been declining for some time. Dr. Guérin left Paris on the 14th inst. for the above-named place. He was so weak that he had to be carried from the railway station to the train in a chair. He suffered from disease of the heart, complicated with an intestinal affection, which was contracted some years ago. Travelling by easy stages, on his arrival at Hyères, and being accompanied by Madame Guérin, he felt very much better, so much so that he thought of soon returning to Paris; but on Monday, the 25th inst., he had an attack of syncope, for which he had to take to his bed, and expired a few hours afterwards. Dr. Guérin was the type of a general practitioner of the old school, but he had a greater predilection for surgery than for medicine, and in the early part of his professional career he distinguished himself as an orthopædist. He was the author of several works of great value, and those on teratology are amongst the most remarkable ever written on the subject. He was very firm in his opinions, which, whether right or wrong, he maintained with great tact and ingenuity. For instance, to the day of his death his theory as to the unique nature of cholera was unshaken, on which subject he only lately distinguished himself in the debates that took place at the Academy of Medicine. He was about eighty-five years of age and one of the senior members of the profession in Paris, having taken his degree in 1826. He had been a member of the Academy of Medicine since 1842 in the section of Medical Pathology. He was also a Commander of the Legion of Honour.

### OPERATIONS BY M. TILLAUX.

On entering the operating theatre at the Hôtel Dieu last week I found M. Tillaux performing an operation. It was, however, impossible to see what he was doing, as the operating table was completely surrounded by his assistants and other visitors, and were it not for a few *viva-voce* explanations, the spectators could have formed no idea of what was going on. What is said here may be applied to all the French operating theatres. M. Tillaux's operation consisted, as he afterwards explained, in the removal of a fibro-myxomatous tumour, which occupied the naso-pharyngeal region, and was about the size of a small hen's egg. It occurred in a young provincial coachman, aged twenty-four years, and had been seven years reaching that size. The palate was divided to get at the tumour, the pedicle of which was found attached to the vomer. There was scarcely any hæmorrhage. Three silver wire sutures were put in. The patient bore the operation very well. No anæsthetics were employed, but the local application of a solution of cocaine prevented the patient from suffering any pain during the section of the palate, which was performed in the median line from the osseous portion through the soft and unattached parts. I saw the patient on the 24th inst.—that is, a week after the operation; the sutures had been removed, and the patient was ready to return to his native village, full of gratitude, as he had not been able to breathe so freely for some time. On the same day M. Tillaux drew off about three litres of a clear colourless fluid from a cyst in the liver of a man thirty-five years of age. The operation was performed with a Dieulafoy's aspirator, and the patient left the hospital three days after, feeling quite well and experiencing no inconvenience from the operation. One of the lads who underwent Estlander's operation about four months ago at the Hôtel Dieu, and whose case was reported in THE LANCET of Oct. 10th last, was lately presented to the Société de Chirurgie by M. Bouilly, the operator, who stated that the cavity containing the purulent matter was filling up; but as the patient was not recruiting his strength as quickly as could be desired, he was allowed to return to his home. The other patient, who was operated on by M. Tillaux, and whose case was also reported at the same time, is still in the hospital, and it strikes me that he, too, should be sent away, as his health is not by any means improving, though there is now scarcely any discharge from the chest.

### BANQUET IN HONOUR OF DR. MATHIAS DUVAL.

A very interesting entertainment in the form of a banquet was offered last week to Dr. Mathias Duval on the occasion of his appointment to the Professorship of Histology at the Paris Faculty of Medicine. The banquet was presided over by Professor Gavarret, Inspector-General of the Medical Schools of France, who had opposite to him at the table Professor Béclard, Dean of the Faculty. Many interesting speeches were made on the occasion, and referred par-

ticularly to the attainments of the guest as an anatomist, physiologist, and histologist of the highest order. One of the speakers in his enthusiasm spoke of histology as being a science peculiarly French, thus ignoring what has been done in other countries in that direction.

### M. PASTEUR.

Owing to the numerous applications that are made to M. Pasteur for his remedy against hydrophobia, he is receiving liberal donations from all quarters to enable him to meet the expenses incurred by him, as most of the applicants belong to the poorer classes, and he is obliged to keep them during the time they are under treatment.

### THE RIGHTS OF "OFFICIERS DE SANTÉ."

Till now the "officiers de santé" were not allowed to practise out of the department in which they obtained their diploma. A proposition has just been laid before the Chamber of Deputies to abrogate this law, and to allow them to practise without any restriction in any part of the French territory without any other authorisation, or without even obtaining a fresh diploma. This is considered a crying injustice, as by this means they will be placed on the same footing as the doctors who have to pass a superior examination, and consequently pay higher fees for their degrees.

Paris, Jan. 27th.

## BERLIN.

*(From our own Correspondent.)*

### SECRET REMEDIES.

THE Berlin Committee for the "Suppression of the Nuisance of Secret Remedies" have decided to present a memorial to Prince Bismarck, with the following propositions: 1. In place of the Imperial ordinance of Jan. 4th, 1875, there ought to be issued one which assigns the preparation, and the keeping and offering for sale, of all kinds of medicaments, inclusive of secret remedies and pharmaceutic specialties for sanitary purposes, in retail, exclusively to the apothecaries' shops. 2. For the restriction of the sale of secret remedies in the apothecaries' shops there ought to be instituted an Imperial board, acting as a technical central office, having the function to examine and test every secret remedy before permitting it to be sold; to fix the price of such remedy; and to determine whether the drug or compound may be issued to the public otherwise than in the form of a physician's prescription. 3. To prevent an inundation of the market with foreign secret remedies and pharmaceutical specialities, it is suggested that they should be subjected to a duty *ad valorem*.

### DISINFECTION BY THE SALT-WATER STOVE.

A year ago Professor A. Dobroslawin of St. Petersburg published a preliminary communication on a portable disinfecting stove constructed by him, which acted through over-heated air. The author obtained the high temperature simply by the use of solutions of common salt instead of plain water. To produce a higher temperature some different salts may be employed. In 100 parts of water, 41·2 parts of common salt gave the boiling-point at 108·4° C.; 61·5 parts of nitrate of ammonia, gave it at 121·0°; 205·0 parts of carbonate of potash, 135·0°; 325·0 parts of chloride of calcium, 179·5°; 88·9 parts of chloride of calcium, 114·2°. The stove requires from 40 to 50 litres of the solution, and boils with a solution of common salt after two or three hours. After four hours' working it must be refilled. To prove the effect on micro-organisms, silk threads saturated with the spores of bacillus subtilis were submitted to the stove, and were completely killed, after remaining three orfour hours in the stove, at 102° to 104° C. The price of the apparatus is 250 roubles (£25), to be procured through the St. Petersburg Metallfabrik.

Berlin, Jan. 21st, 1886.

ST. LEONARDS CONVALESCENT HOME FOR CHILDREN.—The annual meeting of the subscribers to and governors of this Home was held on the 20th inst. In the report it was stated that the institution was doing fairly well, and that during last year 840 children had been admitted to its benefit, 578 of whom came from London and its suburbs, 99 from Surrey, 79 from Kent, and 28 from Middlesex.

## ROYAL COLLEGE OF PHYSICIANS.

AN ordinary Comitia of the College of Physicians was held on the 28th inst., Sir W. Jenner, Bart., President, in the chair. The President drew attention to the fact that in addition to the case considered at the last Comitia, three charges of unprofessional conduct on the part of members and licentiates had been investigated by the Censors' Board, proving, Sir William maintained, that the College was active in vindicating the honour of the profession.

The President nominated Dr. Pavy to deliver the Harveian Oration and Dr. Dreschfeld to give the Bradshawe Lecture this year. The Treasurer announced that the late Dr. Gavin Milroy had bequeathed the sum of £2000, together with certain manuscripts and books, to the College, the money to be devoted to founding a lectureship in State Medicine and Public Hygiene.

Three gentlemen were admitted to the membership, and the licence was granted to 86 successful candidates at the last examination.

Dr. P. W. Latham, Dr. Playfair, Dr. Ringer, and Sir J. Fayrer were elected on the Council; and Drs. Stone and Duckworth were appointed examiners for the Murchison Scholarship.

The quarterly report of the Finance Committee was received and adopted. The annual report of the examiners was read, from which it appears that during 1885 1136 candidates presented themselves for the first examination for the licence, of whom 633 were approved; and 394 for the final examination, of whom 242 were approved. These figures include those who have been examined under the new scheme, and the rejections were in one or more subjects of the examination. A report from the Building Committee was received. It stated that the works connected with the new examination hall were proceeding satisfactorily, and proposed that the laying of the first stone of the buildings should be marked by a public ceremony.

## MEDICAL NOTES IN PARLIAMENT.

### *Overhead Wires.*

IN the House of Commons on the 25th inst., in reply to Sir H. Tyler, Lord J. Manners stated that his attention had been drawn to the failure of telegraph wires during the recent snowstorm, and that no case of accident to any human being had been caused by the wires belonging to the Post Office. The policy of the Post Office for many years past has been to substitute underground for overhead wires in London, and also in other large cities, wherever the extra expense involved could be justified. The mileage of postal telegraph wires in the metropolis on the 31st of December was 9832 miles, of which 9005 miles, or about 11-12ths, were underground wires. In the eastern central and western central postal districts, which comprise the half of the metropolis, there were only 44 miles of overhead wires the property of the Department.

# Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Board of Examiners on the 21st inst.:—

Berrill, Alfred, Oltom.
Bridgewood, John Francis, Stafford.
Brown, Frederick Nathaniel, Chobham.
Christopherson, Cecil, L.S.A., Blackheath.
Clark, Francis William, East Croydon.
Creagh, Arthur George Mellefont, L.S.A., Ballinrollin.
Evans, Oliver Conrad Penrhys, L.R.C.P. Lond., Hadlow, Kent.
Fraser, Paul Wilkes, Wolverhampton.
Hassard, Edward Moresby, Hoddesdon.
Hawkins, Frank Sidney, Bristol.
Ireland, Charles John, Amwell-road.
Pisani, Lionel John, L.S.A., Upper Norwood.
Robinson, Arthur William, Longleat.
Williams, Hugh Lloyd, Waenfaws, Carnarvon.
Young, Charles Wheeler Forrest, L.S.A., Clapham-common

Admitted on the 22nd inst.:—

Bennett, Frederick Thomas, L.S.A., Denmark-hill.
Brown, Edward Vipont, Tufnell-park.

Candler, Wallace Harry Charles, L.R.C.P. Lond., Lee.
Darlington, Alfred Naylor, L.S.A., Birmingham.
Déqué, Laurent, L.R.C.P. Lond., Derby.
Evill, Frederick Claude, L.R.C.P. Lond., Worcester-park.
Greenwood, George Spencer, Ossett, Yorks.
Hodge, Sydney Rupert, L.R.C.P. Lond., Hornsey-lane.
Holderness, John Cautley, Bishops Wilton, Yorks.
Horner, Charles, Julian, Walthamstow.
Le Quesne, Ferdinand Simeon, L.S.A., Brighton.
Morgan, Frederic James, L.R.C.P. Lond., Junction-road.
Okell, John Bathurst, L.R.C.P. Lond., Chester.
Pollard, Charles, Wade Bridge, Cornwall.
Roughton, John Paul, Kettering.
Russell, George Herbert, L.R.C.P. Lond., Barking-road.
Snow, Lionel Mason, King Henry's-road.
Sturdee, Alfred Hobart, Southsea.
Symes, George Dickinson, Dorchester.
Tonks, Henry, Knowle, Warwickshire.
Williams, Lionel Henry, Clifton, Bristol.
Williams, Thomas Henry, L.R.C.P. Lond., Seymour-street.
Wordsworth, William John, Harley-street.
Wright, Alfred, Cape Town.

Admitted on the 25th inst.:—

Barber, Percival Ellison, L.R.C.P. Lond., Sheffield.
Birt, Joseph, Brighton.
Burghard, Frederic François, Brixton.
Castle, Richard Feild, Delamere-crescent.
Combes, Reginald Hare, L.R.C.P. Lond., New South Wales.
Crisp, John, L.R.C.P. Lond., Kennington-park-gardens.
Gardner, William Thomas, L.R.C.P. Lond., Hampstead.
Griffith, Christopher Arthur, Finsbury-park.
Harrison, Sidney Hope, Tamworth.
Holt, Joshua, Leeds.
Hubbard, James Printer, Dudley.
Smith, Robert Gillies, Durham.
Smith, John Anderson, Hull.
Ward, John Oddy, L.S.A., Crossgate, near Leeds.
Warde, Arthur Waldemar Brougham, Yalding.

Admitted on the 26th inst.:—

Bond, Barnabas Mayston, L.R.C.P. Lond., Hastings.
Dickinson, Charles, Sloane-street.
Ewens, George Francis William, West Hammersmith.
Hope, George, L.R.C.P. Lond., Ventnor, Isle of Wight.
Hulke, Frederick Backhouse, L.R.C.P. Lond., Deal.
Pollard, George Frederick, L.S.A., Falmouth-road.
Totsuka, Kankai, L.R.C.P. Lond., Tokio, Japan.
Williams-Freeman, John Peere, M.B. Durham, Southampton.
Wood, Arthur Thorley, Melton Hall, Suffolk.

Admitted on the 27th inst.:—

Collingwood, Frederick William, L.R.C.P. Lond., Manor-road.
Crosse, William Henry, L.S.A., Terrington, Norfolk.
Evans, Evan, M.B. Cantab., Dorchester-place.
Francis, Harry Arthur, L.R.C.P. Lond.
Gifford, George Taylor, L.S.A., Manchester.
Harris, Percy Reeves Traer, L.S.A., Amhurst-park.
Mariette, Ernest Paul Alphonse, L.S.A., St. Stephen's-square.
Morris, Colin Dwight, L.S.A., Philpot-street.
Parsons, Frederick Gymer, L.R.C.P. Lond.
Staddon, Walter Joseph, L.R.C.P. Lond.
Staveley, William Henry Charles, L.R.C.P. Lond.
Wacher, Sidney, L.R.C.P. Lond.

**SOCIETY OF APOTHECARIES.**—The following gentlemen passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise, on the 21st inst.:—

Beer, Louis Edward Simon, Hampstead-road.
Parker, Charles Arthur, Claxby, Alford, Lincolnshire.
Pound, Clement, Odiham, Hants.
Toogood, Frederick Sherman, Manor-park-road, Willesden.

The following passed the examination in the Science and Practice of Medicine, and received certificates to practise:—

Creagh, Arthur George Mellefont, Ballenvollin, county Cork.
Owen, Samuel Walshe, M.R.C.S., Landroft-road, East Dulwich.

Mr. Oliver Pemberton and Mr. Lawson Tait have been elected trustees of Sir Josiah Mason's Science College.

DURING the past year £1015 has been collected by the Cardiff Infirmary Saturday Fund Committee.

THE annual meeting of the Salisbury and South Wilts Provident Dispensary was held on the 16th inst., when a highly satisfactory report was presented by the committee.

AT the annual meeting of the Council of the Metropolitan Hospital Sunday Fund, which was held in the Mansion House on the 22nd inst., committees and officers for the year 1886 were elected.

THE Vice-Provost of Trinity College and the Astronomer Royal, Ireland, each received the honour of knighthood on Monday last, at the hands of his Excellency the Lord Lieutenant.

AT a general meeting of the members of the Hospitals' Association, on the 27th inst., a deputation was received from the British Medical Association, on the hospital out-patient question. The views of the visitors having been stated, a lengthy discussion followed.

AT a meeting of the Sanitary Committee of the Leeds Corporation on the 25th inst., rules for the regulation of the various cowsheds, milkshops, and dairies in the borough were passed.

**CARDIFF MEDICAL SOCIETY.**—The following gentlemen have been elected office-bearers for 1886-87:—President: Dr. William Thomas Edwards, President of the British Medical Association. Committee: A. P. Fiddian, M.B., C. T. Vachell, M.D., A. Plain, M.B., W. M. H. Evans, M.R.C.S. Hon. Secretary: T. Garrett Horder.

**VICTORIA UNIVERSITY, MANCHESTER.**—The following appointments have recently been made:—Brackenbury Professorship of Physiology: William Stirling, M.D., D.Sc., Regius Professor of the Institutes of Medicine in the University of Aberdeen. Lectureship in Medical Jurisprudence: John Dixon Mann, M.D., M.R.C.P.

**NEW INFIRMARY FOR PADDINGTON.**—On Tuesday a new infirmary for the use of the sick poor of Paddington was opened for the reception of patients. The building occupies a site adjoining the workhouse in Harrow-road, is provided with 284 beds, and has been erected at a cost of something like £50,000.

**WESTMINSTER HOSPITAL.**—On Thursday and Friday evening last an entertainment was given to the nursing staff and patients of this hospital. The programme comprised a short extravaganza, entitled "A Romance under Difficulties," which was played by the resident medical officers, and was the source of much hilarity. The decorations were very ornate and tasteful.

AT the annual meeting of the subscribers to and friends of the Pendlebury Hospital and Dispensary for Sick Children attention was called to the practice, common among the poorer classes, of insuring the lives of their children, and it was stated that 75 per cent. of the children dying at the institution were in a club. Clubs in which an infant of a few days old may be insured for any sum up to £6 offer a premium on neglect and carelessness.

**CITY DISPENSARY.**—The ninety-seventh annual meeting of the governors of this institution was held on the 20th inst. The number of patients on the books on Jan. 1st, 1885, was 1296, and 13,476 were admitted during the year. The total receipts amounted to £1825, and the expenditure to £1404, leaving a balance of £421 in the hands of the treasurer, against £692 at the corresponding period of last year.

**THRIFT AND THE WORKING CLASSES.**—Dr. Robert Rentoul of Liverpool will read a paper to the Metropolitan Provident Medical Association on Thrift and the Working Classes. We believe that Dr Rentoul intends describing "compulsory insurance against sickness and accident as it now exists in Germany," also Canon Blackley's "compulsory national insurance." The Association meets at 5, Lamb's-conduit-street, and the chair will be taken at 4.30 A.M. by W. Bousfield, Esq.

**SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.**—On Wednesday, January 13th., the quarterly Court of the Directors of the above Society was held, Sir Henry Pitman, Vice-President in the chair. Grants amounting to £1338 were given to 63 widows, 9 orphans, and 3 orphans on the Copeland Fund. The expenses of the quarter were £66 17*s*. One member was elected, and the death of one reported. The death of a widow in receipt of £50 per annum was announced. There were no fresh applications for relief. The Christmas present, £172 10*s*. had been distributed in December last.

**PRESENTATIONS.**—Mr. J. C. Smith, medical officer at the workhouse of the parish of Great Yarmouth, was on the 12th inst. presented, on behalf of the Poor-law officials of the parish, with a pair of bronze figures and a congratulatory address, commemorative of the attainment of the fiftieth anniversary of his wedding day.—Mr. C. Lowsley, who recently resigned his post as medical officer to the Reading Dispensary, has been presented with a clock and pair of bronze ornaments by upwards of 600 of his former patients.—On the 23rd inst. Mr. R. Prosser, L.R.C.P., of Bromsgrove, was presented with a dessert service of solid silver as a token, on the attainment of his fiftieth birthday, of the esteem in which he is held by his numerous friends in the town in which he resides.

# Medical Appointments.

*Intimations for this column must be sent* DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BRABAZON, HENRY MOORE, M.B., B.Ch.Dub. Univ., has been appointed House-Surgeon to Sir Patrick Dun's Hospital.

CHAMPNEYS, FRANCIS H., F.R.C.P., has been appointed Acting Physician to the General Lying-in Hospital, York-road, Lambeth, vice Williams, resigned.

CORBOULD, HENRY P., L.R.C.P.Lond., M.R.C.S., has been appointed Assistant Medical Officer to the Infirmary of the Wandsworth and Clapham Union.

EMTAGE, EDMUND W., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the First District of the Holsworthy Union.

HERMAN, G. ERNEST, F.R.C.S., F.R.C.P., has been elected Physician to the General Lying-in Hospital, York-road, Lambeth, vice Champneys.

HOGBEN, EDGAR, M.B., has been appointed Physician to Out-Patients to the Queen's Hospital, Birmingham.

LANGHORNE, T. GRANT, M.R.C.S., has been appointed Resident Medical Officer to the Eccles and Patricroft Hospital, Eccles.

WILLIAMS, JOHN, M.D., F.R.C.P., has been appointed Consulting-Physician to the General Lying-in Hospital, York-road, Lambeth.

# Births, Marriages, and Deaths.

## BIRTHS.

COGAN.—On the 21st inst., at Gibraltar, the wife of Surgeon-Major M. Cogan, Medical Staff, of a son.

DAUNT.—On the 24th inst., at Pierpoint, Lindfield, the wife of Elliot Daunt, L.R.C.P.Lond., M.R.C.S., of a son.

GOULD.—On the 23rd inst., at 16, Queen Anne-street, Cavendish-square, the wife of A. Pearce Gould, F.R.C.S., of a son.

HOPKINS.—On the 23rd inst., at Liverpool-gardens, Worthing, the wife of Surgeon-Major Nathaniel Hopkins, of a son.

STEVENSON.—On the 21st inst., at Camberwell-grove, Denmark-hill, the wife of Leader Stevenson, M.D., of a son.

## MARRIAGES.

AINSLEY—HILL.—On the 14th inst., at St. Stephen's, Westbourne-park, Thomas George Ainsley, M.B., M.R.C.S., of Hartlepool, to Wilhelmina Caroline Hill, of Albrighton, Shropshire, daughter of the late H. T. Hill, Esq., of Notting-hill.

CONOLLY—RENWICK.—On the 20th inst., at St. Mark's, Notting-hill, Stephen Fullom Conolly, M.R.C.S. and L.R.C.P.Edin., third son of the late Captain Conolly, Surveyor-General's Department, War Office, to Helen Elizabeth, daughter of General Renwick, R.E.

JERAM—SMITH.—On the 25th inst., at Christ Church, Ealing, W., James William Jeram, L.R.C.P.Ed., L.R.C.S.Ed., of Hambledon, Hants, eldest son of George Jeram, Esq., of Havant, Hants, to Annie Caroline, daughter of the late Captain Charles Mayvore Smith, Madras Native Infantry, and granddaughter of the late Colonel Smith, of Plympton, Devon, and Charles G. B. Ford, Deputy Surgeon-General, Madras Army.

THOMAS—LITTLE.—On November 4th, at St. Andrew's, Lutwyche, Walter Duncan Thomas, M.B.Lond., of Bundaberg, Queensland, second son of the late Benjamin Thomas, F.R.C.S., of Llanelly, to Leila Boyle, third daughter of Robert Little, of Whytecliffe.

YELLOWLEES—WILLIAMSON.—On the 30th inst., at Bellmoir, Bridge of Allan, N.B., by the father of the bride, D. Yellowlees, M.D., of Gartnavel, Glasgow, to Federata, eldest daughter of the Rev. H. M. Williamson, of Belfast, and granddaughter of the late Major James Robert Robertson, of Cray, Perthshire.

## DEATHS.

BOWMAR.—On the 23rd inst., at his residence, St. Martin's, Leicester, Charles Bowmar, M.R.C.S., aged 83.

BROOKS.—On the 24th inst., at Henley-on-Thames, Oxon, James Henry Brooks, M.R.C.S., in his 80th year.

COWEN.—On the 24th inst. (his 69th birthday), at Drayton-park, N., Surgeon-General Henry Lionel Cowen, Army Medical Department (retired).

CURRY.—On the 21st inst., at Barnstaple, suddenly, William Curry, F.R.C.S., L.S.A.Lond., J.P. for the county of Devon, second son of the late Admiral Curry, C.B., aged 77.

DA SILVA.—On Dec. 25th, 1885, at Ghadichi Bhownugra, Kathiawar, India, Pascal M. Da Silva, M.R.C.S.Eng., L.R.C.P.Lond., L.S.A.Lond., Surgeon-in-Charge, Bhavnager-Gondal Railway, aged 34.

POTHECARY.—On the 23rd inst., at Clyde-road, Addiscombe, Charles Pothecary, M.R.C.S., aged 72.

SMITH.—On the 22nd inst., at 2, Stanhope-terrace, Gloucester-gate, N.W., Herbert Ross (Bertie), youngest son of Walter Smith, M.D., M.R.C.P.Edin., aged 11 years.

SUTTON.—On the 20th inst., at Hoylake, Cheshire, John Maule Sutton, M.D., J.P. and D.L. for county Pembroke, aged 56.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

# Medical Diary for the ensuing Week.

## Monday, February 1.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesdays, same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
SOCIETY OF ARTS.—8 P.M. Prof. H. S. Hele Shaw: Friction (Cantor Lecture).
ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Casual communication by Mr. Storer Bennett.—Mr. J. Bland Sutton: Dental and Oral Cases in Animals.—President's inaugural address.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Jonathan Hutchinson, F.R.S.: Some Moot Points in the Natural History of Syphilis (Lettsomian Lecture).

## Tuesday, February 2.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Mr. R. Stuart Poole: Naucratis.
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Specimens of Tumours of the Brain and its Membranes will be exhibited by Dr. Ashby, Dr. Barlow, Dr. Beevor, Mr. Butlin, Dr. Chaffey, Dr. Goodhart, Dr. Hadden, Dr. P. W. Macdonald, Dr. G. Ogilvie, Dr. Ord, Mr. D'Arcy Power, Mr. Peeke Richards, Dr. Saundby, Dr. F. Taylor, Dr. Charlewood Turner, and Dr. Samuel West. Dr. Hale White will show Specimens of Thinning of the Skull from Cerebral Tumours. Microscopical Specimens will be on view at 8 P.M.

## Wednesday, February 3.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department, Tuesdays and Fridays, 9.30 A.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.
SOCIETY OF ARTS.—8 P.M. Mr. George Simonds: Artistic Bronze Casting.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Annual Address by the President (Dr. Potter). Specimens will be shown. Mr. Knowsley Thornton: A case of Removal of both Ovaries during Pregnancy.—Dr. Lewers: A case of Circumscribed Sarcoma of Uterus and Vagina.—Dr. Matthews Duncan: On Contraction, Inhibition, and Expansion of the Uterus.

## Thursday, February 4.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. W. Chandler Roberts-Austen: Metals as affected by Small Quantities of Impurity.
PARKES MUSEUM OF HYGIENE.—8 P.M. Dr. G. A. Heron: How it is Shown that Living Things cause some of the Diseases of Man. The lecture will be illustrated by microscopical specimens.
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Dr. D. B. Lees: The Neurotic Treatment of Catarrh.—Mr. Shirley Murphy: Animal Vaccination.

## Friday, February 5.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Mr. Percy Dunn: (1) A Morbid Growth involving the Right Ligament and Ovary, causing Complete Obstruction of the Intestinal Canal; (2) Chronic Suppuration of the Lung following Pneumonia.—Dr. Campbell Pope: Large Urinary Calculus passed per urethram.—Mr. Hurry Fenwick: Photographs of twelve cases of Extroversio Vesicæ.—Mr. Bruce Clarke: On Abdominal Exploration.—Dr. Herringham and Mr. Edmonds: A case showing the results of Infantile Palsy.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—8 P.M. Clinical Evening. Mr. Power and Mr. Juler.
ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Mr. T. Pridgin Teale: The Principles of Domestic Fireplace Construction.

## Saturday, February 6.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Mr. Archibald Geikie: The History of Volcanic Action in the British Isles.

## METEOROLOGICAL READINGS.

*(Taken daily at 8.30 a.m. by Stewart's Instruments.)*

THE LANCET Office, Jan. 28th, 1886.

| Date. | Barometer reduced to Sea Level and 32° F. | Direction of Wind. | Dry Bulb. | Wet Bulb. | Solar Radiation Vacuo. | Max. Temp. 6hrs. | Min. Temp | Rainfall. | Remarks at 8.30 A.M. |
|---|---|---|---|---|---|---|---|---|---|
| Jan. 22 | 29·54 | N.E. | 33 | ... | ... | 37 | 31 | ·07 | Overcast |
| ,, 23 | 29·45 | N.W. | 36 | 35 | ... | 37 | 32 | ·10 | Snowing |
| ,, 24 | 29·49 | W. | 35 | 33 | ... | 38 | 32 | ·10 | Cloudy |
| ,, 25 | 29·36 | E. | 37 | 36 | ... | 42 | 31 | ·25 | Foggy |
| ,, 26 | 29·50 | W. | 38 | 36 | ... | 45 | 36 | ·05 | Fine |
| ,, 27 | 29·83 | E. | 39 | 38 | ... | 44 | 36 | ... | Overcast |
| ,, 28 | 29·88 | S.E. | 34 | 34 | ... | ... | 32 | ... | Foggy |

# Notes, Short Comments, & Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*Letters relating to the publication, sale, and advertising departments of* THE LANCET *to be addressed "To the Publisher."*

### QUACKERY AND ITS PUNISHMENT IN HOLLAND.

A ROTTERDAM jeweller, who has been for some time past carrying on the trade of "cancer cures," which he seems to have found much more profitable than that to which he was brought up, has found to his chagrin that the Dutch laws do not allow of the perfect freedom in the treatment of the human body which is doubtless considered as an important part of the liberty of the subject by the whole confraternity of charlatans. Had his impostures been carried on in this country, it is questionable whether he could have been successfully prosecuted at all, and under the most favourable circumstances he would only have been compelled to disgorge a few pounds of his ill-gotten gains by way of a fine. The Dutch court, however, marked its sense of the gravity of offences of this character by sending him to prison for fifteen days.

*Justitia.*—We regret we are unable to answer the questions. Probably the information might be obtained from the publishers.

### QUINQUENNIAL CENSUS.

*To the Editor of* THE LANCET.

SIR,—I was extremely pleased to see in your issue of Jan. 16th (p. 122) an annotation advocating the propriety of a quinquennial census. It is a matter that has long pressed on my mind, and I have spoken of it in high political quarters, but have been told that the great argument against it is its expense. My feeling is that the advantage we should derive would far exceed the expense. Statistics are sometimes said to be very misleading. This can only be true if the statistics are false, and our great concern is in every case to prevent this. The circumstance of the immigration of our populations as affecting the census of towns, in addition to the natural excess of births over death, is a matter too plain for more than mention, but its effect in falsifying the official death-rate tables is very serious in a number of cases. I am informed that the quinquennial census has already been adopted in Germany—a circumstance worthy of consideration in the argument.

I am, Sir, yours obediently,

Ilkeford, Jan. 20th, 1886. JOHN THOMPSON, M.D.

### TOUTING FOR PATIENTS.

*To the Editor of* THE LANCET.

SIR,—Can you tell me if it is in accordance with professional etiquette for one practitioner to send round an agent to call at the doors of other practitioners' patients to ask them to join his "club" (not a charitable one) for a weekly payment of 2*d*. I am, Sir, yours truly,

Jan. 23rd, 1886. G. G. B.

*** We need scarcely say that such a procedure is highly unprofessional.—ED. L.

### RENAL SURGERY.

*Mr. Clement Lucas* writes that the operation for total suppression of urine performed by him on a patient of Mr. Atkins of Sutton, previously noticed in THE LANCET, has proved completely successful. The wound healed soundly, and the single kidney, relieved of the stone which blocked its outlet, is working as well as before the operation, whilst the patient's general health is quite restored. Thus a new way of saving life in particular instances has been successfully pioneered. Mr. Lucas explored a kidney for calculus on Jan. 19th in a young gentleman who had been under the care of Dr. Tirard, and for some time under the observation of Professor Humphry at Cambridge, for frequent paroxysmal attacks of acute pain in the region of the left kidney, which had been ruptured two years before. No stone was found, but a cicatricial adhesion between the colon and kidney. On Jan. 22nd Mr. Lucas operated in Guy's Hospital on a patient of Dr. Boyce of Maidstone, for a dilated strumous kidney, which he drained through the loin. These patients are progressing favourably.

*Enquirens.*—The course is undoubtedly legal. The risk attending it must be judged of by our correspondent.

### "PARALYSIS AGITANS" AND "CEPHALALGIA."

*To the Editor of* THE LANCET.

SIR,—In reply to "Inquirer" and Mr. Hunt, whose letters appeared in your issue of Jan. 9th, p. 94, I beg to recommend a medicine which I have found of great service in similar cases. It is the biniodide of mercury. The descriptions given point, of course, in both cases to meningeal mischief; in the former over the motor centres of the vertex, and in the latter at the base of the brain. I prescribe the biniodide in a mixture, as follows:—Solution of bichloride of mercury (P.B.), ℥j—℥iss; iodide of potassium, ʒ ss—ℨ ij; infusion of gentian or of calumba to ℥ viij; half an ounce to be taken every three or four hours. In "Inquirer's" case I would add from five to eight grains each of chloral and bromide, sweetening the mixture well with simple syrup to cover the taste; whilst in Mr. Hunt's case I would blister the parts where the pain is severe. Thus prescribed, I regard the biniodide as a specific for all forms of meningitis. When occurring in young children, as it so frequently does, during teething, for instance, I have found the mixture act "like a charm." I generally prescribe it one-fourth of the strength given above, and with grain-doses of chloral every two hours. Of scores of cases treated during the last year I have never found it fail to cure. Its action, I argue, is to rapidly absorb that effusion which, to a greater or less extent, must accompany or follow meningeal congestion, and thus to relieve that pressure upon the great nerve centre, which, from the unyielding nature of the cranium, would otherwise cause convulsions. When quiet sleep has been secured with eight or ten doses of the medicine I omit the chloral, but when convulsions are a marked symptom I give two-grain doses of that drug in a separate bottle, with directions to give it every hour or two, or as occasion may require.

I am, Sir, yours faithfully,

Jan. 14th, 1886. C. R. ILLINGWORTH, M.D. Ed.

*To the Editor of* THE LANCET.

SIR,—Mr. Hunt, in a letter in your issue of the 9th inst., p. 94, asks for suggestions as to treatment in a case under his care. Has galvanism been tried? I remember a girl of about the same age as Mr. Hunt's patient who complained of acute pain in the spine, had a very high temperature, and had apparently quite lost the use of her lower limbs, who rapidly recovered under the use of galvanism. Does the total cessation of symptoms at night indicate hysteria?

I am, Sir, yours obediently,

Jan. 21st, 1886. A SURGEON.

### FRACTURE OF THE CLAVICLE.

*To the Editor of* THE LANCET.

SIR,—It is unusual for the surgeon to see the accident the results of which he has to treat. This happened to me recently, whilst engaged in a game of curling at the Glaciarium in this town. One of the players was walking on the ice towards me when his feet slipped from under him, and he fell on his back. I could not have said that he fell more upon one shoulder than the other, but no doubt, in the effort to save the back of the head, he did so. He got up and complained about its being a "nasty knock"; but it did not appear that he could have hurt himself much, and he continued the game to the end, about an hour afterwards. I noticed that he kept the left hand very steady, but thought that some slight muscular injury only had been received, and advised him to foment the limb. Two days afterwards his wife brought him to me, and said that she wished him to be examined as he kept complaining. Upon stripping him I found a fracture of the left clavicle, near the acromial end. As is common in this situation, there was little or no displacement. The double curvature of the bone was very strongly marked, and the muscular development large. These elements no doubt contributed to the result. The artificial ice upon which the fall took place is entirely without elasticity—as unyielding as stone; whereas natural ice with water under it is not so bad to fall upon. We do not often hear of broken bones from falling whilst sliding or skating; nor do I think that fracture of the clavicle often occurs from falling backwards.

I am, Sir, yours faithfully,

Southport, Jan. 10th, 1886. EDWARD DAY MCNICOLL.

### A WORLD'S SABBATH.

MR. LUIS JACKSON of Chicago proposes the formation of a World's Day of Rest League. He claims, from a practical study of the subject, that human rapacity is becoming so great that unless the working men of all denominations take measures to preserve a uniform day of rest, they may lose it altogether. He desires the League to be untrammelled by any question of particular belief, simply advocating that which he believes was the original and humane intent in Mosaism—namely, the guaranteeing to labour a day of rest. He has already proposed to his Jewish brethren that at a convention of representative Jews from all parts of the world, to be held at Paris in the year 1900, the Jewish Sabbath be transferred to the national day of rest by authoritative edict. He fully believes that when this measure is considered by his co-religionists they will make the sacrifice of transferring their sabbath, thus recording on the imperishable tablet of chronology the benevolent and influential action of an ancient church, still vigorous in the cause of civilisation. The movement has obvious bearings on the physical and mental well-being of the human race.

*Fairplay.*—A is not legally bound not to practise, there being no contract; but practising in a suburb two miles distant would make his situation often very delicate and difficult with reference to B, unless he can get B's hearty consent. With this, and a friendly and honourable disposition on both sides, no great harm need be done to either.

*Messrs. Leonard and Co.* (New York).—We cannot exchange.

### "FRIENDLY SOCIETIES' MEDICAL INSTITUTIONS."

*To the Editor of* THE LANCET.

SIR,—It was my lot to be in one of the above. Thinking it consisted only of poor men, and judging from the pay that the work would be light, one went in with the idea of studying each case well and doing all that lay in one's power to make it more prosperous and effective as a beneficial aid. That was the idea before going in. The opinion was soon altered by facts, as, instead of working men alone, many of the members were in a good position, above that of a member of a friendly society at least, above the position of obtaining medical advice at a rate that is a tax on the goodwill and energies of medical men and only intended for poor men above the position of those applying to the parish. Two members were town councillors. One member walked into the sitting-room one evening, without the ordinary civility of a maid-servant, and demanded attention to his case. Another time a lady answered the private door to the knock of a member; the member stepped back, stared at her, and asked in a most insulting manner who she was, and this being reported to the committee, was passed by as of no consequence. It would fill a volume to enumerate the outrages committed on common sense and civility at that place. No member ever seemed to grasp the idea that work was being done at the smallest cost by medical officers, who, in performing it, lost caste, heart, and interest in the profession. Instead of a feeling of gratitude and a desire to lessen worry and lighten the work, which, especially under such circumstances, should be the spirit, the reverse was the case, and if objection was raised to an insult, you were immediately reminded that you were paid to do the work. A demand would be sent where only a message or request was needed. Here was seen all the morbidness, ignorance, and silliness of the public unchecked. Medical men, the guides and advisers, were dictated to by working men; children came in repeating the mothers' message, who had prescribed for herself; and in cases where a bottle of medicine and careful direction were all that was required, the advice was thrown to the winds and the contents of 100 or more bottles readily and needlessly taken. The waste of drugs was disgusting; sufficient would be given to last for four or five days, and the next night the bottle was returned for refilling.

Do the members of these places ever think that by the degrading treatment they subject their doctors to, and the poor pay they give them, they are really sowing a bad harvest for themselves? A man's mind is inhibited under such circumstances; his interest lags; he does not put forward determination, energy, or perseverance, and bring his faculties to bear on the cases before him. There is no hope of reward. The public gain nothing by harassing the medical profession with cheap doctoring, which soon loses its value; many cases are lost that can be saved, but the public are more to blame than the profession, for a man is but a human being, and needs rest and recreation to bring his faculties to be of use in working out cases. A man of inferior mental abilities in a social atmosphere, where he is free from insult, worry, dispiriting circumstances, and morbid surroundings in general, will become more useful than one suffering and labouring under such disadvantages. On leaving this appointment and going into private practice, the benefit of the change was felt at once. Now there was some hope of being rewarded for work, and interest in the profession consequently returned. Cases were studied instead of being slurred, health improved, and the respect shown to one's opinion raised the mind from a drowsy condition, and gave freedom to the judgment. Then a man becomes valuable. In these institutions the committee take all the fees for the medical officers and give the latter only a portion. In this place the subscriptions must have come to £900 a year, but only £300 was given to the doctors, about £200 to the senior and £100 to the junior. The medical officers should receive all and pay the expenses themselves. It is amusing to see members swallowing a camel and straining at a gnat by allowing their medical officers to be treated thus, which diminishes the general value of their services, and making a great stir about any little grievance, or fancied grievance, respecting the treatment of a case.

The great alteration required in the club system is for members only to pay—say, 2*s.* 6*d.* per member per annum, or some such sum as may be thought fair, and pay a reduced sum for each bottle of medicine and visit. This will do a great amount of good by putting a check on members sending for every trifling thing at all hours. Night visits will of course be more than day. The doctor will not be so annoyed and worried; less waste of medicine will take place; the member will feel more independent, more respect will be felt for him, and, consequently, a better feeling will exist. There will be greater inducement to attend to cases as people under this system will not trifle so readily with medical attendance. At the same time, an effort should be made to allow only artisans, labourers, and such like, to be members of a club, as at the best the remuneration is a tax on the profession.—Yours faithfully,

Jan. 18th, 1886. FAIRPLAY.

### "WAKES AND THE SPREAD OF SMALL-POX."

*To the Editor of* THE LANCET.

SIR,—In reply to Dr. Whitelegge, I must explain that the conviction alluded to in my letter published in THE LANCET of Jan. 16th was not for holding a wake, but for exposing a child suffering from small-pox by removing it from home to another house after having been duly warned of the nature of the disease and that the child ought to be sent to the hospital. It was mentioned as an aggravation of the offence that a wake had been held upon the body of another child, also deceased from small-pox, and that neither child had been vaccinated. Dr. Whitelegge is correct as to the circumstances necessary to ensure a conviction; but I may remind him that under Section 142 of the Public Health Act the dead body of any person who has died of an infectious disease may be removed, and a wake may be thus prevented. Such has been frequently done in Liverpool. The wake is not only a drunken carousal, but also a means whereby a sufficient sum is often, if not always, raised to pay all the funeral expenses; hence the artful devices adopted to prevent the sanitary authorities hearing of the proposed intention to hold a wake, and the difficulty of suppressing the practice.

I am, Sir, yours faithfully,

Jan. 26th, 1886. YOUR LIVERPOOL CORRESPONDENT.

### ROMAN CATHOLICS AND INTEMPERANCE.

IT appears that no church can boast of being absolutely free from the vice of drunkenness in its members. No one can refuse a meed of praise to Cardinal Manning for his untiring labours and highly consistent example in the cause of temperance. Some of his speeches have been singularly earnest and powerful. His last utterance on this subject was in favour of a Home of Rest for Roman Catholic inebriates at 41, St. Julian's-road, Kilburn, the first of the kind in the Catholic body. He bore warm and well-merited testimony to the zeal of members of other churches in this cause, and enforced his argument by quoting the calculation that from 60,000 to 120,000 persons in England died annually directly or indirectly from intemperance.

### "THE RATIONAL METHOD OF TREATMENT OF HYDROPHOBIA."

*To the Editor of* THE LANCET.

SIR,—May I be allowed to say a few words about Dr. G. C. Roy's suggestion regarding the subcutaneous injection of diluted cobra poison in cases of hydrophobia, as published in THE LANCET of the 9th inst. Dr. Roy calls it a new and startling suggestion; but some years ago similar experiments were made in Germany, France, and Italy on lower animals. I am not in a position to say if these experiments were made with the poison of the cobra or some other venomous snake; but, so far as we know, there is no difference in the *modus operandi* of the different snake poisons. Until Dr. Roy can show any defects in the above experiments of continental medical men, or any difference in the poisons from different species of venomous snakes, it will be useless to try them again. Perhaps Dr. Roy was not aware of these experiments, or he would have alluded to the same. While admiring the highly scientific way of reasoning out the rational mode of treatment as discussed in his article, I must ask Dr. Roy to find out another specific antidote for rabies, by the same thoughtful study of the physiological actions of different poisons which characterises his last article.

I am, Sir, your obedient servant,

Ealing, Jan. 21st, 1886. N. P. SINHA, M.R.C.P. Lond.

### THE ALBO-CARBON LIGHT.

*To the Editor of* THE LANCET.

SIR,—In my reply in your last issue to Mr. Walters' inquiries regarding the effects of burning albo-carbon, I omitted to state that I was careful to remove the deposit of anhydrous sulphate of copper, which collects in the form of an impalpable powder on the surface of the plate above the burner. Should the above precaution be neglected, I can readily imagine that irritation of the air passages might be caused by the powder being suspended in the atmosphere.

I am, Sir, yours obediently,

Clifton, January 27th, 1886. G. S. THOMSON, M.D.

### "LYE-TEA."

A VERY large quantity of what is known as lye-tea has, it appears, recently been sold in the market. It is a spurious tea, and calculated to do immense injury to those who, under the mistaken idea that cheapness and quality are synonymous, consume it. The tea trade itself could easily put a stop to the importation of this poison by simply refusing to look at it; but in the absence of such a happy state of things it ought to be made law that all tea not passed shall be immediately destroyed. As matters now stand, importers of this stuff know that they cannot make a very ruinous loss. If they succeed in placing it on the market and it is passed, well and good; if not, the worst that can happen is that it is has to be transhipped to the Continent at a merely nominal loss. Until such action as we have indicated the necessity for be taken, it is to be hoped that the Custom-house inspectors will by vigorous action check the importation of a compound, the selling of which, either wholesale or retail, ought to be made penal.

*Dr. W. W. Skinner.*—We are unable at present to entertain the proposal.

*Dr. James Oliver's* paper will appear in an early number.

### "NOISELESS COAL FIRES."

*To the Editor of* THE LANCET.

SIR,—In an annotation on the above subject in your issue of the 16th inst. (page 125) no mention is made of what is of much importance in a sick-room—the prevention of sound from coals and cinders falling from the fireplace. For many years past I have advised, in ambulance lectures (second or "nursing" course) that, besides wrapping fresh coals in pieces of newspaper (not brown paper), a thick layer of fine ashes should be allowed to remain under the fireplace. Most people dislike the appearance of a dirty hearth; but easily-disturbed patients much appreciate the difference between a noisy and a noiseless fire—a reason why I prefer a gas and asbestos fire in a sick-room. For sick-room purposes the coal should not be of a bituminous, gassy, or flaring kind.

I am, Sir, yours obediently,

Jan. 20th, 1886. S. H.

### ALBUMINOMETRY.

*To the Editor of* THE LANCET.

SIR,—Referring to Mr. Blomfield's description of Esbach's method of albuminometry, in your last issue, p. 153, I am sure most of us recognise the advantage of his plan; there is only one drawback—viz., a special apparatus is required. I have been in the habit of testing quantitatively for albumen in the following manner, with results, I believe, quite as accurate as those obtainable by Dr. Esbach's plan; every consulting-room contains the necessary apparatus. I first measure out a drachm of the urine, test for albumen, taking, of course, the usual precautions, and pour back into the drachm-measuring glass; allow to settle for twelve hours, and then read off the amount of precipitate; say, it is up to the five-minim mark, then I note, "Albumen one-twelfth." The actual amount passed per twenty-four hours can thus be found either by weight or bulk.

I am, Sir, yours truly,

Clifton, Jan. 25th, 1886. ARTHUR PRING, B.A. Camb.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir William Mac Cormac, London; Mr. Macnamara, London; Mr. Godlee; Mr. A. Clark, Bath; Dr. Leibowitz, Vienna; Dr. Thomson, Clifton; Mr. R. Wooton; Mr. Harries, Aberystwith; Dr. Oxley, Liverpool; Mr. F. F. Bond, Rastrick; Mr. H. B. Richardson, Birkenhead; Mr. V. Horsley, London; Mr. S. W. Hambleton, London; Mr. Sparrow, Ystrad-Rhondda; Dr. O. H. Allis, Philadelphia; Mr. A. R. Aubrey, Surbiton; Mr. J. D. Farquharson, Newcastle-on-Tyne; Dr. J. Adam, London; Dr. R. Savage, London; Dr. Illingworth, Clayton-le-Moors; Mr. Axford, London; Dr. H. Campbell, London; Mr. Challis; Mr. A. G. Chitty, London; Mr. Archer, Liverpool; Mr. W. T. Jackson; Dr. Matthew Hay, Aberdeen; Mr. H. W. Allingham, London; Dr. Cory, Bournemouth; Dr. Bampton, Plymouth; Mr. J. Oliver, London; Mr. H. B. Bramwell, Nottingham; Dr. Mackern; E. Garrett Anderson, M.D., London; Dr. Campbell Black, Glasgow; Mr. Simeon Snell, Sheffield; Mr. Noble Smith, London; Mr. Walker, Spondon; Mr. A. E. Barker; Mr. McKinney, Nunhead; Mrs. Reaney; Prof. Buchanan, Glasgow; Dr. Leftwich; Mr. Buchanan, Wigan; Mr. F. Lankester, London; Dr. Thompson, Bideford; Mr. Holland, London; Mr. E. O. Day, London; M. Dupratz, Paris; Mr. Sinha, Baling; Mr. Hincks, London; Mr. Lycett, Wolverhampton; Dr. Murray, Forfar; Mr. E. Owen, London; Mr. N. E. Davies, Sherborne; Mr. Hume, Edinburgh; Mr. Bellamy, London; Mr. Donstan, Tottenham; Mr. Pring, Clifton; Mr. Newman, Bowness; Dr. Rentoul, Liverpool; Dr. W. Ewart, London; Dr. Tate, Notts; Mr. Freeman, Bath; Dr. Cachin, Cowes; Mr. Palliadieuse, London; Col. Burneau; Dr. Hamerton, Hendon; Mr. Quicke, Brixton; Dr. Davies, London; Mr. Maythorn, Biggleswade; Mr. Da Silva, Ghadichi; Mr. Evans, Cardiff; Dr. Scott, Florida; Messrs. Roberts and Co., Manchester; Messrs. Oliver and Boyd, Edinburgh; Mr. Back, Norwich; Mr. Pullin; Mr. Millar, London; Dr. Chattelateau, Montreaux; Messrs. Smith and Son, Manchester; Mr. Hope, London; Mr. Bell, Dover; Dr. Dowding, Bournemouth; Mr. Kings, London; Messrs. Edmondson and Co., Skipton; Mr. Wallace, Clapham; Mr. Wood, Chelsea; Mr. Knight, Northampton; Messrs. Horsfall and Co., Wakefield; Messrs. Squire and Sons, London; Messrs. Waltham Bros., Stockwell; Messrs. Lee and Martin, Birmingham; Mr. Cuthbertson, Leeds; Messrs. Slinger and Co., York; Mr. Thelwall; Mr. Hinde, Baildon; Messrs. Bell and Co., Edinburgh; Messrs. Cornish Bros., Birmingham; Dr. Griffiths, London; Sir B. Robert; Dr. Adams, West Malling; Messrs. Panain and Co., Dublin; Messrs. Anderson and Co., Sunderland; Mr. Taylor, London; Messrs. Christie and Co., London; Messrs. Lorimer and Co., Holloway; Mr. Hunt, Cosham; A Subscriber for Twenty-four Years; Octogenarian; Fairplay; Sans Succès; M.R.C.S.; A General Practitioner; A Surgeon; F. J. W.; M.D., Llanelly; G. B. B.; A. B.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Skinner, Paris; Mr. Evans, Roath; Mr. Fiddler, St. Helens; Mr. Oldfield, Camberwell; Mr. Kemp, Castleford; Dr. Hunter, Notts; Mr. Clinton, Blandford; Mr. Learmonth, Kentish Town; Mr. Robinson, Bury St. Edmunds; Mr. Shute, Greenwich; Dr. Morton, Sheffield; Dr. Blair, Scunthorpe; Mr. Jones, Manchester; Messrs. Anderson and Co., Sunderland; Mr. Apel, Hastings; Dr. Evans, Festiniog; Dr. Eberle, Thirsk; Dr. Needham, Gloucester; Mr. Landor, Bath; Mr. Newill, Bishop's Castle; Mr. White, Bayswater; Mr. Bennett; Mr. Gowan, Newtown; Mr. Plowman, Taunton; Mr. Wood, Leyburn; Mr. Boyeau, Paris; Dr. Kennedy, Albury; Mr. Smith, Winchcombe; Mr. Leggat, Bastry; Miss Waugh, Bow; Mr. Moorhouse, London; Mr. McMullan, Turnham-green; Mr. Logan, Glasgow; Messrs. Maclehose and Sons, Glasgow; Mr. Brockelbank, Worcester; Messrs. Matthews and Co., Birmingham; Medicus, London Hospital; Beta; X. Y. Z.; Z. Z.; J. C. B., Islington; Chronos, Leeds; Delta; Churchman; Medicus, Cardiff; Antizime; Azegos, Bayswater; Veritas; A. C.; B. J. A., New Ross; T., Windermere; Medicus, Southsea; H. H.; Principal, Westgate-on-Sea; Matron, Bedford Infirmary; F. H., Dublin; Peter; Asthma.

*Manchester Courier, Charity Record, Wiltshire County Mirror, Mansfield and North Notts Advertiser, Berkshire Chronicle, Forfar Herald, Western Mail, Liverpool Mercury, Birmingham Daily Gazette, Aberdeen Daily Free Press, &c.*, have been received.


## SUBSCRIPTION.

POST FREE TO ANY PART OF THE UNITED KINGDOM.

| | | | |
|---|---|---|---|
| One Year | £1 12 6 | Six Months | £0 16 3 |
| To CHINA AND INDIA | One Year | 1 16 10 | |
| To THE CONTINENT, COLONIES, AND UNITED STATES | Ditto | 1 14 8 | |

Post Office Orders should be addressed to JOHN CROFT, THE LANCET Office, 423, Strand, London, and made payable at the Post Office, Charing-cross.

Notices of Births, Marriages, and Deaths are charged five shillings.

Cheques to be crossed "London and Westminster Bank."

## ADVERTISING.

| | |
|---|---|
| Books and Publications (seven lines and under) | £0 5 0 |
| Official and General Announcements | 0 5 0 |
| Trade and Miscellaneous Advertisements | 0 4 6 |
| Every additional Line | 0 0 6 |
| Front Page per Line | 0 1 0 |
| Quarter Page | 1 10 0 |
| Half a Page | 2 15 0 |
| An entire Page | 5 5 0 |

The Publisher cannot hold himself responsible for the return of testimonials, &c., sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post-offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

**Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.**